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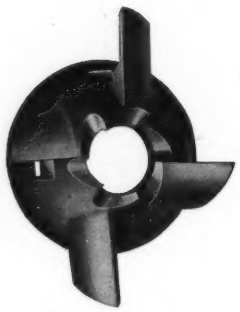

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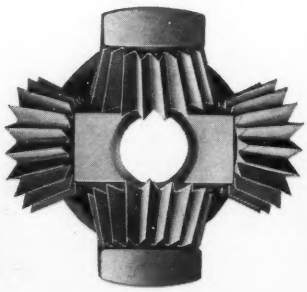

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January 28, 193[illegible]

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As you know I am in the general Well Servicing business, which includes Drilling In, behind Rotary, Deepening Old Holes, and Cleaning Out.

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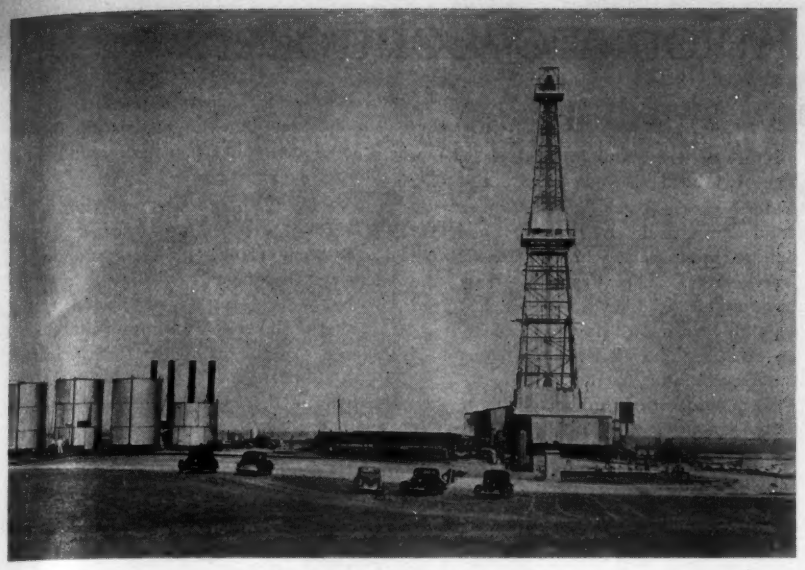


AMERADA'S S.P.L. NO. 7-17
The rig, pipe racks and tanks posed gracefully for the photographer the day the well was completed flowing 4230 bbls. discovering a new field.

Amerada Petroleum Corp. Eocene Find

Ten years ago, Amerada Petroleum Corp., already a major operator in Mid-Continent fields, established operations in California. During the intervening years, they acquired one of the most valuable leases in Kettleman Hills, later turning it on an advantageous percentage basis to be developed by another operator. A well directed wildcatting campaign resulted in the discovery of two prolific gas fields, Rio Vista and Tracy.

Following last summer's discovery of Eocene shoreline production southeast of the old Coalinga Eastside field, Amerada Petroleum Corp. began to thoroughly check the entire area, combining geological studies with geophysical data. On the basis of this investigation, leases totalling more than 6000 acres were taken and a location was chosen 1050 ft. north and 330 ft. east of the southwest corner of sec. 17,19-16.

Preliminary grading commenced the first of the year and contractors Bell & Loffland started the kelly turning to the right on the 19th of January, 1939. Without undue incident, drilling progressed satisfactorily, the top of the Kreyenhagen shales being encountered at 7000 ft. From the first, S.P.L. No. 7-17, as the well is called, received unusual attention from the industry at large. The project, regardless of its ultimate result, was bound to yield valuable clues to the northerly continuation of the prolific Eocene shoreline sands found on the Coalinga nose, four miles to the south.

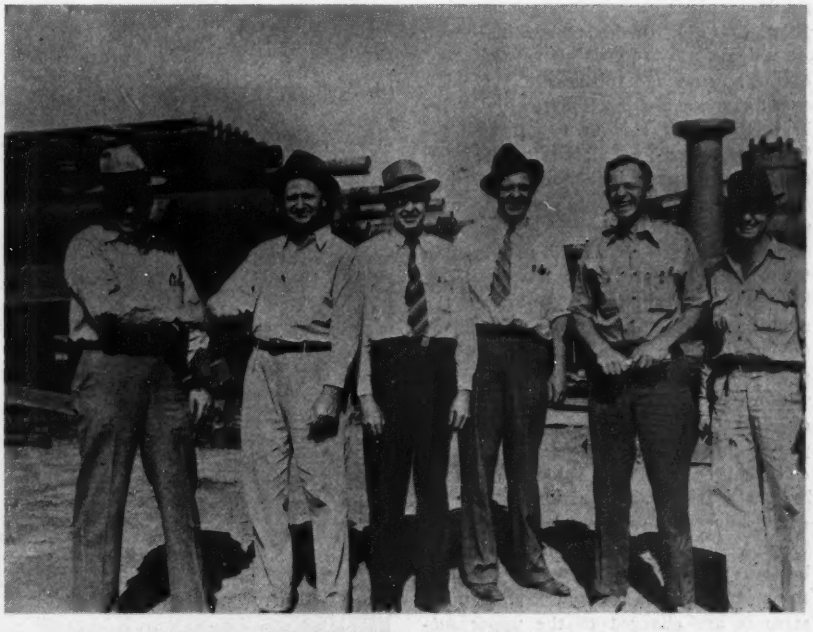
On the last day of March, news was flashed to Los Angeles that at a depth of 8037 ft., the well had entered Eocene sand showing evidences of gas and light oil. So good did the sand appear that no formation test was deemed necessary and the hole was cored ahead to 8082 ft. before cementing a 7 in. water string at 8022 ft.

First hint of the possibilities of the newly discovered sand was given, when, during the water shut off test, gas blew at the rate of 6,000,000 cu. ft. daily, accompanied by a spray of condensation oil. Up to this point it had seemed possible that Amerada had extended the Gatchell zone, and that production would be continuous along the buried shoreline from northerly Coalinga Nose wells. It was now evident that the Amerada sand was deeper than the lowest structurally located wells on the Nose and yet had found a typical gas cap condition; a definite indication of the existence of some sort of a barrier between.

On resumption of drilling, the grayish gas sand changed rapidly to good, dark brown, oil sand which continued to final bottom at 8327 ft. Anticipating an unfavorable gas-oil ratio, it was decided to attempt to exclude the upper gas-bearing sands with a combination liner. Accord-

(Continued on Page 31)

SATISFIED SMILES
Adorn the faces of Bell & Loffland's drilling crew on completion day. Pictured are Driller W. H. Wilde, Fireman M. Pyron, Derrick-man C. E. Culbertson and Floormen J. E. Sutton, E. H. Burns and A. Dasher.



ATTENDING THE PREMIER
were J. O. McFadden, General Superintendent (being congratulated by Fisher Governor representative, H. C. Dahl), Geologists J. S. Kirkendall and Downs McCloskey, Engineer W. H. K. Dunbar and Geologist R. A. Holman.

Application of Automatic Controllers

In Solvent Refining and Dewaxing

J. F. Thornton and T. T. Whipple
The Lummus Company, New York

The comparatively recent commercial development of solvent refining and solvent dewaxing processes has been materially assisted by the use of automatic control instruments. The importance of instrumentation in modern lubrication oil plant design is indicated by the fact that instruments and control valves represented 7—10% of the total material cost of several recent installations. From the refiners' standpoint, the correct application of instruments in the design of solvent lube units results in accurately controlled product specifications, labor savings, low solvent losses, and smooth operation. This paper will present a general description of control applications from the standpoints of process engineering and operation, and a brief outline of selected control problems essentially unique to solvent refining and dewaxing units.

Generally speaking, several applications of instruments to each control problem are usually possible, and those presented, while not the only feasible ones, represent the control methods found most satisfactory by the authors.

Solvent Refining

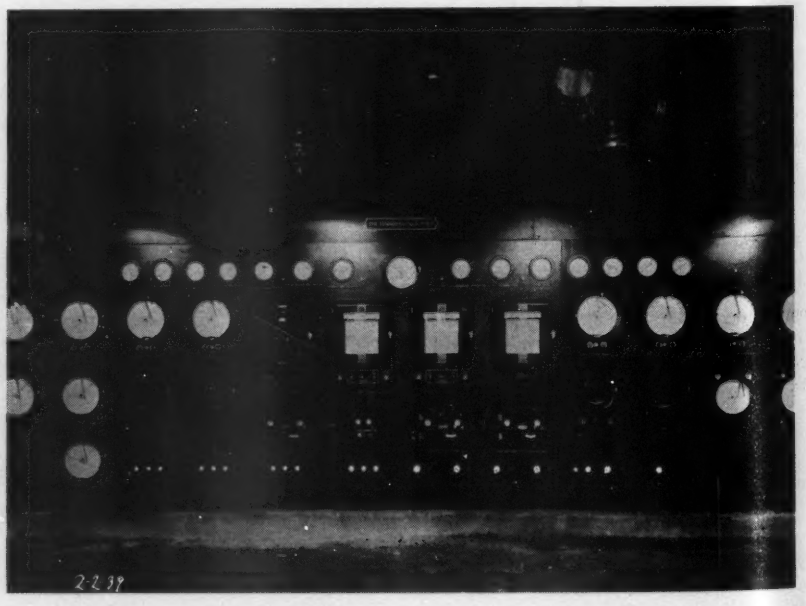
For the purpose of definite examples of solvent refining unit control, we shall consider a furfural extraction plant, (Fig. 1). In this type unit, charge oil and furfural are continuously charged to the bottom and top respectively of a counter current extraction tower wherein the ratio of solvent to oil and the temperatures are regulated to yield the desired products. The tower overflow or raffinate layer containing the valuable lube fractions is charged through an exchanger and heater coil to a vacuum tower for recovery of solvent. The bottom or extract layer, containing the naphthenic constituents of the charge oil, settles due to its higher specific gravity (about 1.1) and is continuously withdrawn from the extractor and charged to the recovery system. It passes through exchangers and a heater coil thereby effecting solvent recovery by evaporation. The residue from the evaporator towers is released into a vacuum stripper, and the finished extract bottoms are pumped through a cooler to storage. The stripper condensate streams are charged to the upper section of a tower wherein separation is effected between dry furfural at the draw-off pan and a constant boiling mixture of water and furfural at the top. The overhead is condensed and the water layer, which separates out on condensing and cooling the constant boiling mixture, is charged to a small fractionator. The overhead from the fractionator is likewise condensed and separated into two layers, and the net water is withdrawn from the bottom of the fractionator to the sewer.

The automatic control problem presented by an extraction tower process is one of maintaining constant volume ratios of solvent to oil and simultaneously holding predetermined top and bottom extractor temperatures. Volume ratios are satisfactorily handled by the application of flow controllers in each stream with the orifices in the discharge lines and the controlled valves in the steam lines to direct acting pumps or in the discharge lines of centrifugal pumps.

The temperature of the top of the extractor is controlled by a vapor pressure type instrument with the bulb located in the top of the extractor and the controlled valve in the water line to a solvent charge cooler. The temperature of the bottom of the extractor is usually controlled by a vapor pressure system controller with the bulb in the bottom of the extractor and the controlled valve in the water line to a cooling bundle which extends through the extractor near the bottom. The process lag is relatively large in this case because of the large volume in the extractor with respect to the flow toward the bottom, but the application of this type of controller has been found satisfactory in practice.

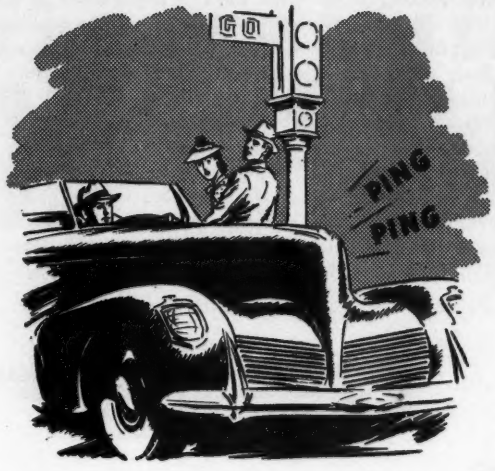
The liquid in the lower portion of the extractor tower consists of a bottom layer or extract phase containing a large percentage of solvent together with the undesirable oil fractions, and an upper layer or raffinate phase consisting of the valuable lube fractions with a small percentage of furfural. The automatic draw-off of the extract layer from the tower is usually controlled by an internal type duo-gravity level controller. This instrument employs a weighted float which will sink in the raffinate layer, (specific gravity approximately 0.88) and float in the extract layer (specific gravity approximately 1.10). An interesting indicating instrument has been used in Europe for this service. The difference in electrical conductivity between the raffinate and extract layers is utilized to make or break circuits across electrodes placed vertically a few inches apart in the side of a vessel, thereby closing or opening circuits to a row of lights on the instrument panel.

Furfural, like most commercial solvents, boils over a very small range and at a much lower temperature than that at which most lube oils begin to vaporize and so is readily separated from the extract and raffinate phases by evaporation and stripping. The normal refinery temperature control problem is in connection with units wherein a separ-



Main Instrument Panel—4400 Barrel per day Benzol-Ketone Dewaxing Unit.

HOW TO GET RID OF CARBON "PING"—FOR GOOD!



...why have a car that runs like this

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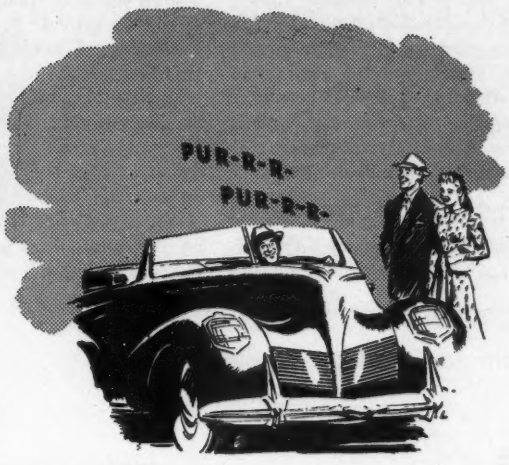

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Enjoy the benefits of this 100% Pure paraffin-base oil that changes PING to PURR by cleaning out carbon as you drive!

You can get rid of annoying and damaging carbon ping easily and inexpensively with Triton Motor Oil. Because it is Propane-solvent refined, it forms so little new carbon that *it actually allows your motor to burn away carbon deposited by other oils!* The motor generally loses its carbon ping within 2 to 3 thousand miles!

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ation of a multicomponent mixture is made by fractionation. Usually in a solvent lube unit the boiling points of the solvent and of the lube oil are so widely different that the separation approaches a single component evaporation problem. It is essential that this difference be recognized when considering the application of temperature controllers.

Reflux is generally used in solvent evaporators for desuperheating vapors only where in reasonably close control is required for smooth operation rather than for any fractionating control. The recovery system top tower temperatures are maintained in the conventional manner by vapor pressure or potentiometer type instruments controlling the reflux streams.

Furnace temperature controllers are usually provided on solvent refining units to insure against overheating of the finished oil and for generally smooth operation. Furnace outlet temperature control is not required for optimum yield as in distillation and cracking units, but rather for the efficient operation of the comparatively complicated heat exchange systems found in solvent refining units. Due to the comparatively low boiling range of the usual solvents, considerable vaporization takes place before the heater outlet is reached, making it desirable to provide for two or more parallel streams, converging in a common transfer line to the flash tower. It is desirable that each of the parallel heater streams be flow controlled. Due to the high percentage of vaporization in the heater of what is essentially a single component, the temperature within the coil is not as sensitive to heat input variation as in the case in a normal pipe still. In the design of most solvent plants the direct-fired heater is used to complete the final evaporation of solvent just prior to stripping. When the evaporation is carried to this extent the outlet temperature is reasonably sensitive to heat inputs as can be seen from Figure 2. Satisfactory control can be obtained by the use of a temperature controller with the element in the transfer line and the controlled valve in the fuel system. In this connection it is important that the heater be properly designed to accommodate the large amount of vaporization without the introduction of a temperature peak within the coil.

The use of various evaporation principles in solvent recovery systems sometimes involves the control of pressure in a system wherein the vapors are completely condensed. The pressure in such a system can be maintained by a recording pressure controller, permitting

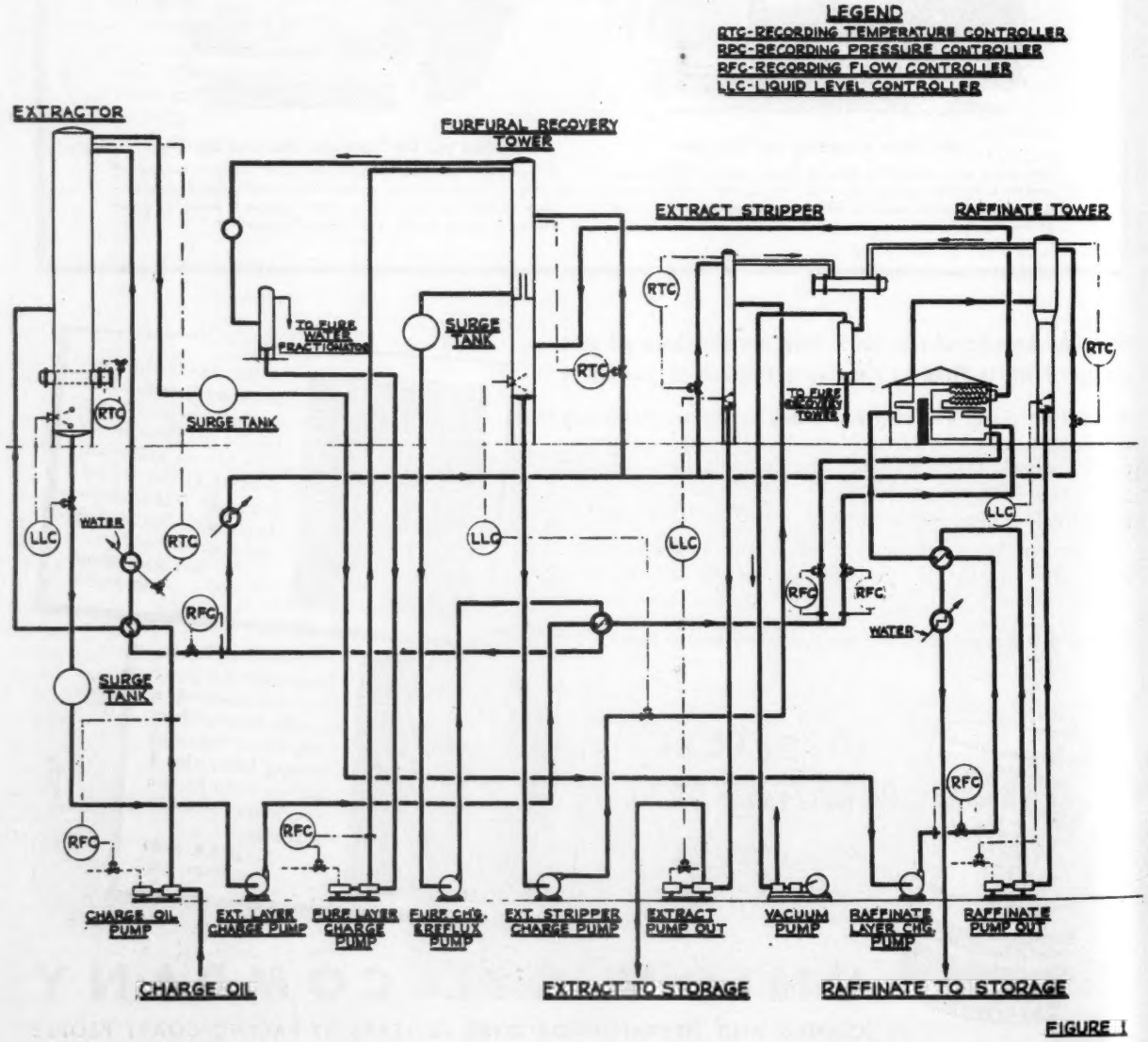

FIGURE 1

CALIFORNIA OIL WORLD DIRECTORY

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indirect control of the rate at which condensation occurs in an overhead vapor condenser. That is, the pressure controller actuates a valve in the condensate outlet raising or lowering the level of the subcooled liquid, thus blanking off a portion of the total available condensing surface, resulting in control of the tower back pressure.

No special instruments are employed in furfural refining units, but several comments on general operating practice may be of interest. In units handling waxy stocks the oil flow meters are usually equipped with water seals and the leads and seal-pots are steam traced. It is desirable to provide solvent flushing lines to meters handling extract and oil-solvent mixtures, also to connect drains and vents to the main solvent drain system. In general, averaging type internal floats are used to eliminate difficulty from plugging of waxy stocks and extracts and also to insure the smoothest possible operation. This point is particularly important in this type unit because most of the flows within the unit are determined by level control from tower bottoms and accumulators. The inherent and distinguishing feature of solvent lube units that necessitates very close correlation of levels and flows is the continuous recirculation of the solvent.

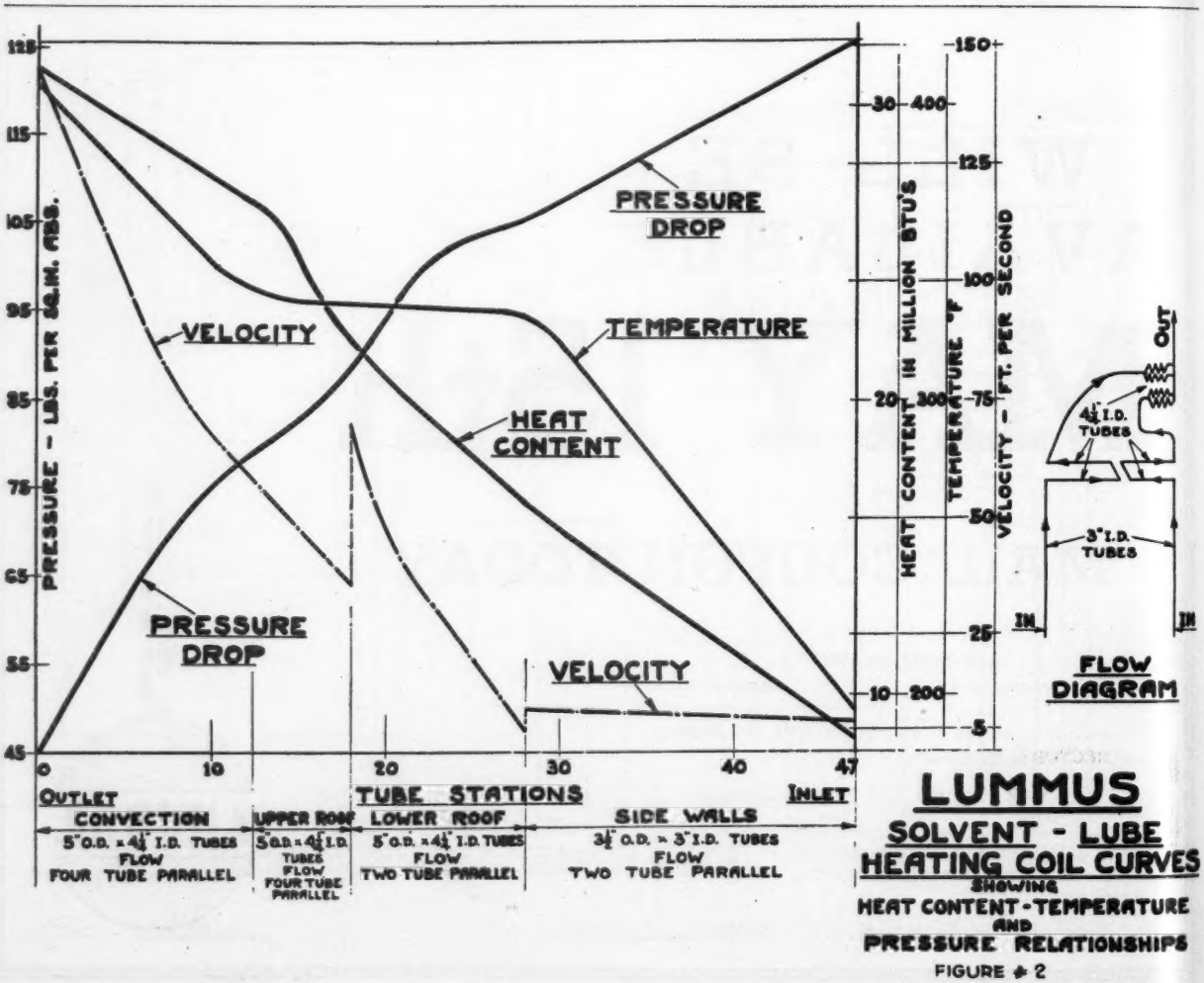
Solvent Dewaxing

The solvent dewaxing process, which uses benzol-ketone mixtures and is the most widely adopted of the modern dewaxing methods, will be used to illustrate control problems (Fig. 3). In this process oil and solvent are mixed and then chilled in double-pipe units by exchange and by direct expansion of ammonia. This chilled material is then fed to continuous rotary vacuum filters where the wax is separated, washed with solvent and discharged to a flow receiver. The filtrate is withdrawn to vacuum receivers and pumped through the double pipe exchangers to the solvent recovery system. There the filtrate is heated by exchange and direct fired or steam heaters in order to evaporate most of the solvent. The residue from the evaporators is steam stripped at atmospheric pressure.

The slack wax from the filters is heated by exchange with solvent and exhaust steam and settled to remove any water introduced with the charge oil. The solvent is then recovered from the wax in a manner similar to that outlined for recovery of solvent from the filtrate.

The overhead from the strippers is condensed and settled so that the water is withdrawn as a water-ketone layer. This water layer is charged to a small fractionator in which the net water is removed from the bottom and a constant boiling mixture of ketone and water is taken overhead to the slack wax mix settling tank.

Accurate control of the solvent to oil ratio is essential for optimum results in solvent dewaxing. Ratio flow controllers are widely used for this service. Normally, dewaxing plants handle oils from 100 SSU @ 100°F. to 200 SSU @ 210°F., and where oils with such a wide range of viscosity are to be metered by orifice it is advisable to investigate the orifice coefficient for viscosity correction. Errors introduced by varying viscosities



LUMMUS
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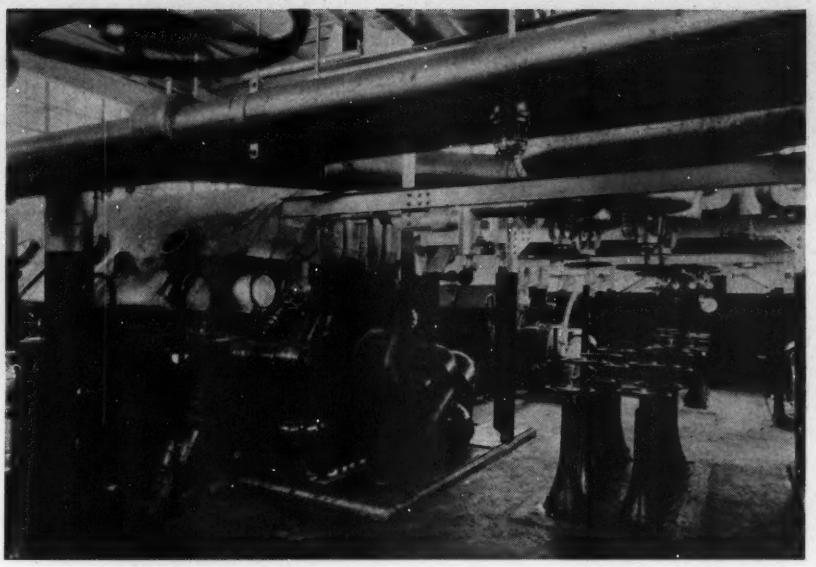
HEATING COIL CURVES
SHOWING
HEAT CONTENT - TEMPERATURE AND PRESSURE RELATIONSHIPS

FIGURE # 2

are reduced by maintaining line velocities at the orifice as high as possible.

If we consider the application of ratio flow controlling to dewaxing units it becomes obvious that it is desirable to have a set of orifices for each stock because the various lube stocks are processed at different charging rates and with different ratios of solvent. Further, the coefficients for each oil orifice should be corrected for the viscosity of that particular oil at its normal charging temperature. In practice this is accomplished by providing interchangeable orifice fittings for both oil and solvent charge lines and sets of orifice plates with corrected coefficients. This phase of flow controller engineering is of recent development, and is probably of greatest value to operators of solvent dewaxing units.

Split flow of the oil-solvent mix thru the chilling units is frequently desirable from the standpoint of pressure drop and this complicates the problem of mix ratio control. Further, the rate of charge is determined in the final analysis by the rate of filtration. A satisfactory control set-up for this type system is illustrated in Figure 4. Recording flow controllers are used on the individual streams thru the chilling units. The solvent charge pump is regulated by a pressure controller maintaining a constant discharge pressure and a ratio flow controller actuates a valve in the steam to the oil charge pump. The effluent from the



Elevation at Rotary Filters—4400 Barrel per day Benzol-Ketone Dewaxing Unit.

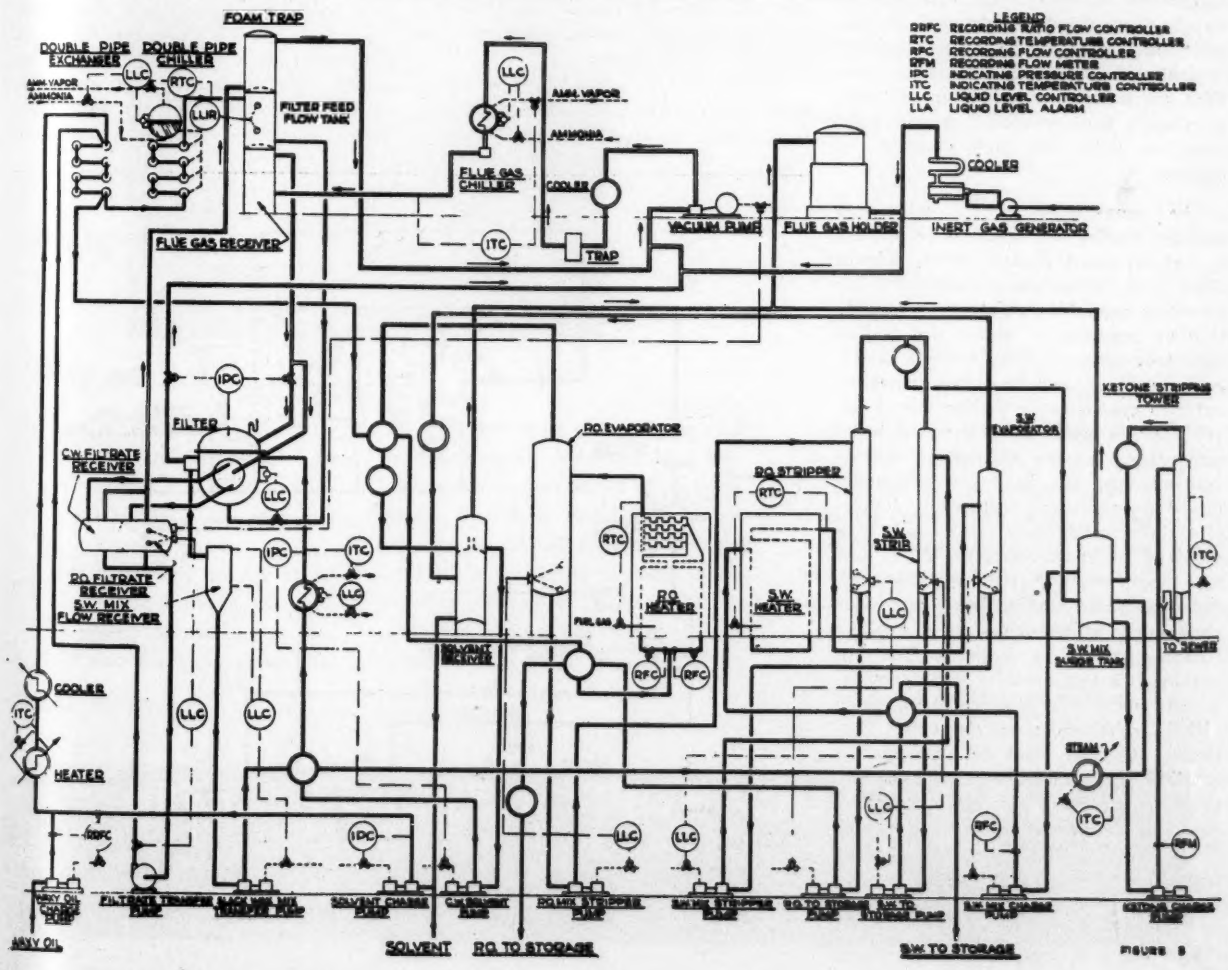


FIGURE 5

chillers enters a surge tank from which the filters are fed by gravity. The level in this tank is recorded on the main control board as well as indicated in the filter room. The operator re-sets the individual stream flow controllers to maintain the desired level. Various automatic level resets have been tried in this service, but manual control has worked out more satisfactorily. The reason is that with any automatic reset device, upsets in charge rate occur as filters are cut in or out of service. An operator, on the other hand, can let the feed tank level run low just before he stops a filter for its periodic washing and then likewise allow the feed level to run high just before starting a filter, thereby taking full advantage of all available surge capacity with minimum flow changes. Manual attention to this detail is very simple and effective in actual practice.

The problem of indicating or recording the level of the waxy mixture in the filter feed tank is met by using an internal float with air pilot. In order to be able to utilize all available surge capacity, a special type internal float mechanism is used. The ball float is attached on an arm at right angles to the pilot shaft which enters through a small tangential nozzle. Consequently, the float can travel thru a 180° arc, thereby allowing a level recording range nearly equal to twice the tank diameter, if desired.

The temperature of the solvent-oil mixture leaving the double-pipe chillers is an important control point. Liquid filled type temperature controllers are normally used to regulate the evaporation of ammonia to obtain the desired mix temperature. This control is accomplished by installing the controlled valve in the ammonia suction line to the refrigeration plant. Thus, the final outlet temperature of the solvent oil mix is controlled by the back pressure maintained on the direct expansion double-pipe chillers. Excellent results have been obtained in approximately — 25°F. service by equipping these valves with radiating finned stuffing boxes and valve positioners to eliminate valve sticking troubles caused by freezing. The important low temperatures in solvent dewaxing units are also recorded using nickel resistance type elements. Particular attention must be given to the location of thermowells in systems containing precipitated wax so as to avoid accumulation of wax on the thermowell. Experience indicates that the most satisfactory location is perpendicular to the flow in a straight pipe run rather than in elbows or corner fittings.

For years, it has been standard refrigeration practice to use a very simple direct acting float chamber type level controller for regulating the level in ammonia accumulators on chilling equipment. These have been abandoned in the more recent design of solvent dewaxing units because of their tendency to stick and their lack of control characteristics. In their place, standard kidney type floats and air actuated diaphragm valves are used for holding ammonia accumulator levels. This equipment gives excellent results in this service. The level controls in this case simply maintain the liquid ammonia level in the chillers while the ammonia vapor back pressure valve actually controls the outlet temperature.

The solid slack wax cake from the filters is discharged by a screw conveyor into a flow tank from which it is pumped to the solvent recovery system. The problem of controlling a level in these tanks is very difficult because of the semi-solid nature of the material. Satisfactory results can be obtained by using a manometer type level controller with a carefully regulated continuous "bleed-back" of solvent to keep the lead lines free from wax. The conveyors dump the wax cake into the top of the receivers, and consequently internal float controls are difficult to employ.

The feed to the rotary vacuum filters is by gravity from an overhead tank and is regulated by level controllers on the individual filters. Kidney float type levels with air pilots are used, and a continuous cold solvent wash is employed to keep the kidney free of wax. The floats are especially designed so that solvent can be introduced around the float shaft to keep it free from wax and also to minimize level disturbances. Radiating fins are provided to prevent the shaft from freezing. The valves used to control the feed of the cold waxy mixtures are of the butterfly type equipped with radiating fins and connections for periodic flushing with warm solvent. This system of filter level control operates in completely satisfactory manner. The butterfly valve is especially adapted to this service where a low pressure drop is allowed due to the low head gravity feed and because the flowing mixture has a tendency to plug at any point where there is an appreciable resistance to flow. In this particular application tight-shut-off is not necessary.

The rotary vacuum filter used in this process for the separation of precipitated wax consists of a sectionally divided cylindrical drum which can be revolved inside a closed vat. The chilled oil-solvent mixture in the vat is maintained at a level corresponding to about 60% drum submergence and the filtrate is withdrawn thru a rotary valve. This rotary valve consists of a multi-port plate which rotates with the filter drum, sealed against a machined fixed head

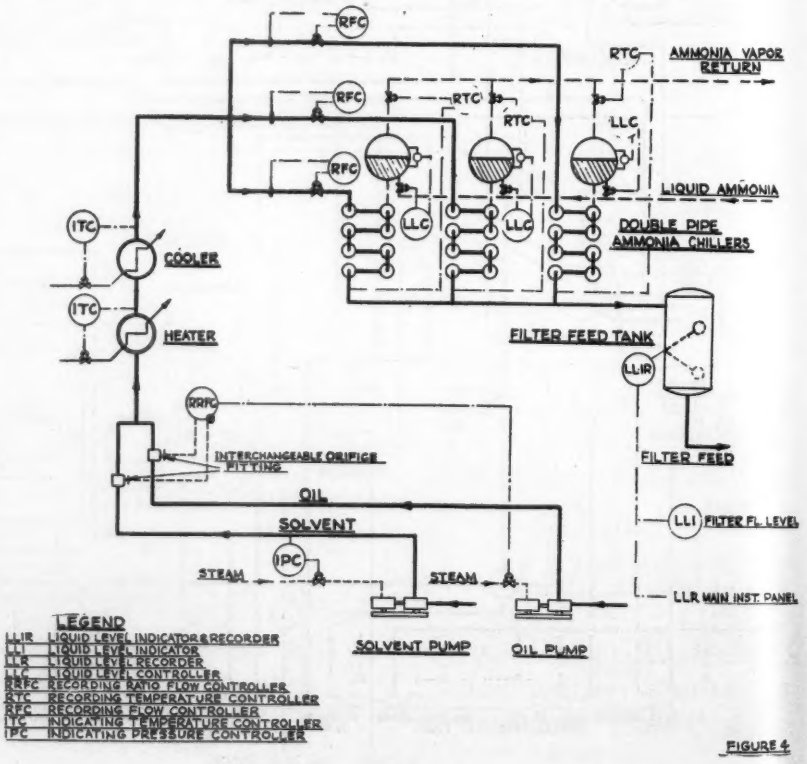
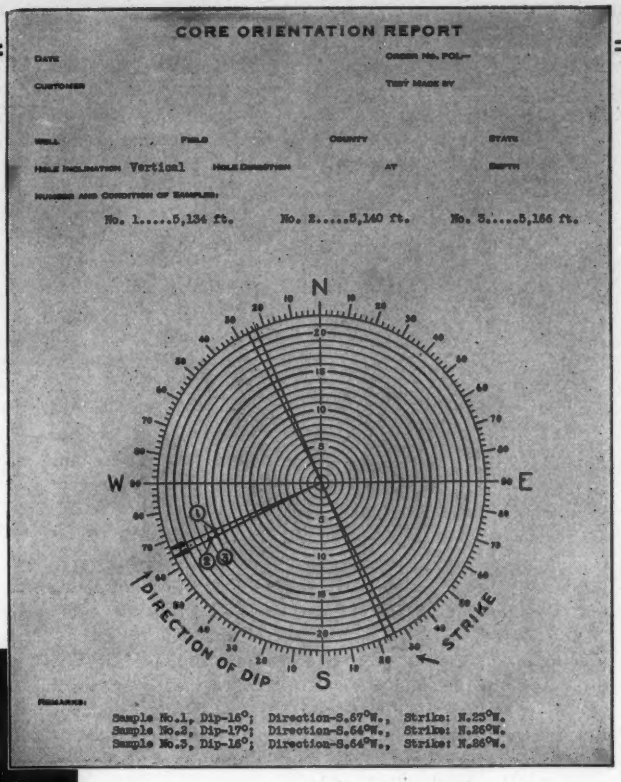


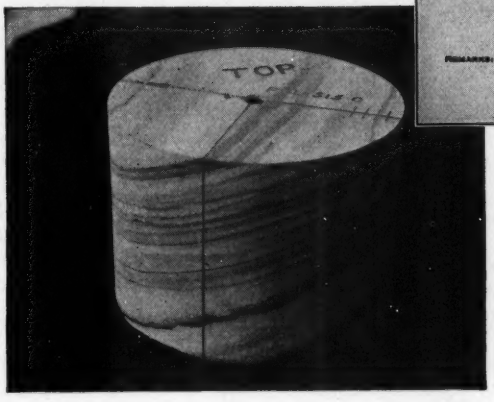
FIGURE 4

Sperry-Sun's CORE ORIENTATION SERVICE



Typical Sample Report

Sample Core



ANNOUNCING THE NEW SPERRY-SUN PRICE LIST NO. 28

Our new price list No. 28 is ready for distribution. A copy, together with a treatise on the subject, will be sent on request.

Direction and angle of dip of core samples with visible indication of a bedding plane are determined in our laboratory. The North and South sides of the core are identified through residual polarity in the heavy minerals of the sample. Cores as small as 1" in diameter and 2½" in length can be oriented.

The method is RAPID, INEXPENSIVE and VERY ACCURATE. Cores hand-picked out of core trays chosen for bedding planes and sizes, properly marked top and bottom, can be shipped to our laboratory from any distance. We have successfully oriented cores sent to us from Europe and Asia. Write for Price List No. 28.

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thru which the dewaxed filtrate, the wash solvent and a portion of the inert gas are withdrawn intermittently as the drum rotates. The wax cake formed on the drum periphery is discharged by blowing with inert gas through the rotary valve. The instrumentation of this portion of the plant must be applied to operate in a supplementary manner with respect to the rotary valve.

It is desirable to maintain a constant low pressure blanket of chilled flue-gas over the filter drum and this presents the most interesting related control problem because of the variable and intermittent factors involved. The primary circulating flue gas circuit as shown in Figure 5 consists of a vacuum pump taking suction from the filter hood through the filtrate tanks and discharging through coolers, chillers and surge tank at approximately 5 lbs. ga. pressure back to the filter hood through the rotary valve. The variables affecting the circuit are first the quantity of gas withdrawn thru the cake into the filtrate system and second, the amount of gas blown into the hood through the blow-back system used to discharge the wax cake. Both of these items are beyond the usual control of the operator, since they are primarily a function of the wax cake characteristics.

Until recently the method of maintaining a constant pressure of chilled flue gas in the filter hood was to use a circulating blower and a multiple diaphragm low pressure gas regulator. A simpler, more positive and sensitive method of control has been developed recently. The application consists of a duplex indicating controller with the hood pressure acting as the control point and two diaphragm valves actuated from this single instrument. One diaphragm valve is located in the pressure gas line to the hood, and opens to admit gas when the hood pressure falls below a control setting. The other controlled valve is in a line from the hood to the vacuum pump suction and opens to release gas when the hood pressure exceeds a control setting. The control settings which operate the two valves can be changed in the usual manner but they always differ by 1" water pressure so that when the indicating pointer is between the two control settings, both valves are closed. The control element used is a spring-loaded inverted ball manometer. It has been found that this type of control contains sufficient dampening effect to prevent noticeable hunting, and on the other hand is sensitive within about 1½" water pressure.

The application of control instruments to dewaxing unit solvent recovery systems is similar to that outlined above for solvent refining units. The ketone fractionator charge is flow controlled, and the stripping steam to this tower is automatically regulated by a vapor pressure type controller to maintain a fixed temperature in the stripper about one-third down from the top. The feed enters on the top deck and by varying the temperature control setting, it is possible to vary the stripping action as desired.

In general, internal type floats are used in all wax vessels. Wax flow meters are provided with solvent seals, and the lower portions of the seal pots containing the wax are steam traced. An interesting type of Venturi meter has been reported for handling slack wax with various percentages of solvent. The entire inside is chromium plated and provided with solvent wash connections both upstream and downstream of the throat.

Snap action shut-offs are sometimes used to cut off the fuel to direct fired heaters in event of excessive tower pressures as a safety measure and to avoid the loss of solvent thru relief valves. This type of instrument must be manually reset after the upset condition has been corrected. Emergency high level float shut-offs are occasionally installed on filtrate receivers to shut down the vacuum pump in order to prevent damage by liquid entering the cylinder. In general the application of instruments as safety devices is an important feature of modern instrumentation.

It is desirable to distribute the control instruments in a solvent dewaxing unit into three separate groups. In addition to the customary use of a main pump-room control panel certain instruments should be grouped in the filter room, and all chilling controllers should be separately grouped convenient to the refrigeration operator.

From a consideration of the few control problems described above, it is obvious that the successful commercial development of solvent refining and dewaxing processes depends to a large extent on the proper application of automatic control. The instrument manufacturers deserve a great deal of credit for their assistance in the application of controls and for their development of new instruments to meet problems that have arisen.

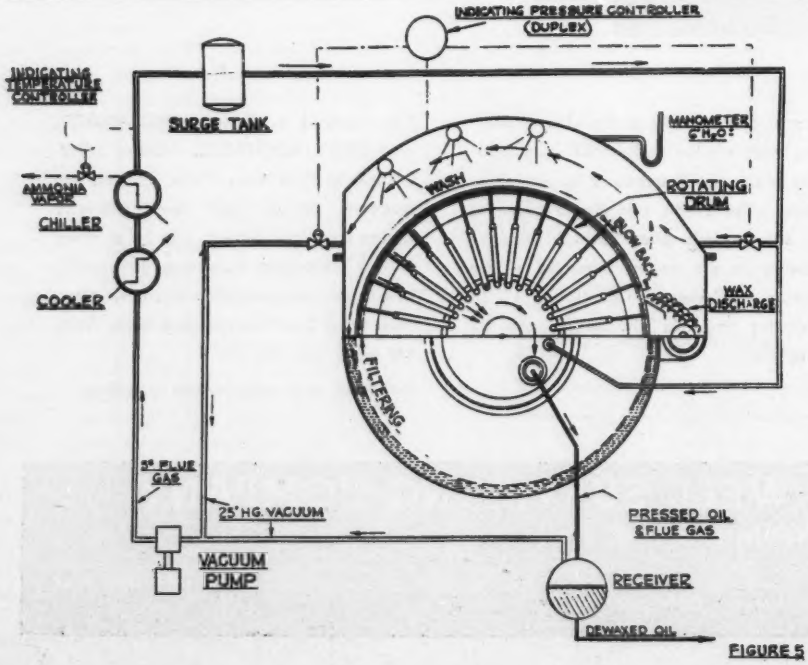

FIGURE 5

YOU

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Activities

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The

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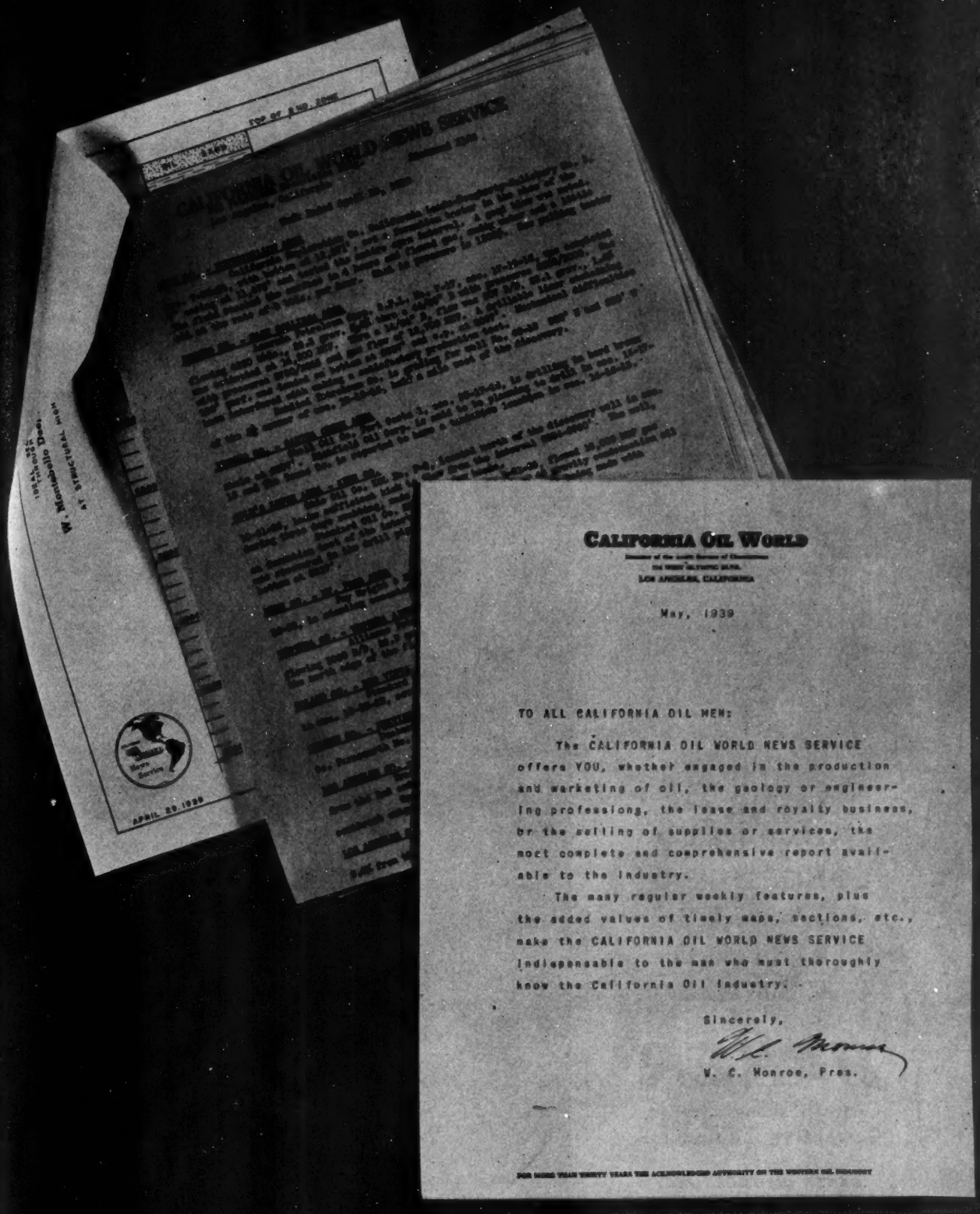
Oil Scouting Weekly



CALIFORNIA OIL WORLD

Published by the Associated Bureau of Information
714 WEST OLYMPIC BLVD.
LOS ANGELES, CALIFORNIA

May, 1939

TO ALL CALIFORNIA OIL MEN:

The CALIFORNIA OIL WORLD NEWS SERVICE offers YOU, whether engaged in the production and marketing of oil, the geology or engineering professions, the lease and royalty business, or the selling of supplies or services, the most complete and comprehensive report available to the industry.

The many regular weekly features, plus the added values of timely maps, sections, etc., make the CALIFORNIA OIL WORLD NEWS SERVICE indispensable to the man who must thoroughly know the California Oil Industry.

Sincerely,

W. C. Monroe, Pres.

FOR MORE THAN THIRTY YEARS THE ACKNOWLEDGED AUTHORITY ON THE WESTERN OIL INDUSTRY

L A U G H T H I S O F F

The story may be absolutely groundless, but we are informed on fairly reliable authority that the new Griffith Park Golf Clubhouse was built on one of **Dave Kilgour's** divots.

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And when the salesman arrived at the office of a local oil man, and found a note tacked to the door, reading, "Will be back in an hour," he promptly wrote underneath it "What for?" and went on his way.

Whereupon **Scotty Connelly** tells us that one of his countrymen recently acquired a chameleon. He placed the lizard on a red sweater, and he turned red. Then he sat him on a green tie and he turned green. But when he was laid on a piece of Scotch plaid, the poor little beggar simply busted himself all to pieces trying to make good.

Julius Dietzel now comes to bat with an interesting story about two oil men who wandered into a dark alley late one Saturday night and found a fellow lying on his face. Says the first one, "I wonder if he's injured or inebriated," and the second one immediately answers, "Well, he ain't drunk. I jist seen his fingers movin'."

A Long Beach operator who has been many years in the business, called his son into the office the other day, and told him, "I've worked hard these past fifty years, Jim, and I feel that it's time for me to turn the business over to you and retire." You could have knocked him over with a hand grenade when Bill piped, "Aw shucks, paw, why don't you work a little while longer and then both of us retire."

Which recalls the youngster out in Whittier who was being dressed in his first pair of long pants. "Now you are a little man," said the fond mother, and the kid answers, "Good! Guess I kin start callin' paw Bill."

On this subject, we know a chivalrous rousty who so sincerely hates to see a woman standing in a street car that as soon as he gets aboard and takes his seat he always closes his eyes.

And another sympathetic lad who actually protested the situation, said he managed to get a seat himself, but there wasn't a single soul aboard who had the decency to rise and give one to his wife.

A recent dispatch brings news that **Homer Law** is the latest oil golfer to join the hole-in-one club. Homer made an ace on a 217 yard hole at Brentwood a short time ago. He will be remembered for his highly probable suggestion that golf was originally started by a Scotchman who found a diamond in the rough.

And since the wife of a local pumper was granted a divorce because her husband neglected her in favor of golf, the sale of clubs has increased tremedously.

Then there was the Bakersfield driller who described his new baby as "Small, clean shaven, very red faced, and a hard drinker."

Ernie Dalany had occasion to check upon an applicant a short time ago, who at one time was apparently a street sweeper, and was informed, "The man of whom you speak worked in our street sweeping department for some time. He was a thoroughly conscientious workman, but a trifle weak around the lamp-posts."

And when they were having a little shindig out at the boarding house, one chesty individual inquired, "You don't mind me singing, do you?" "No," said one of his admirers, "Not if you don't mind the rest of us getting sick."

This is the same lad who went out to **Doc Curtis'** office at Brea for an examination, and found a notice on the door reading "Consultations, 10 to 1." He left immediately because, as he explained it, "He wasn't gonna take a chance on no long shot like that."

All of which brings us once more to the end of our stint. Remember, there wouldn't be nearly so much strong language used in the oil business if we paid a notary 50 cents every time we wanted to swear.

And when it tastes like sawdust, it is not necessarily good board.

Aubert Elected President State Oil Producers Agency

L. L. Aubert, general manager of the Bankline Oil Co. was elected president of the Oil Producers Agency of California at the annual meeting of the association of California independent oil men at the Biltmore April 26.

Mr. Aubert is also a member of the Central Committee of California Oil Operators, chairman of the Allocation subcommittee of that group, and has been active in the American Petroleum Institute for the past several years. In addition, he is a director of the California Petroleum Safety Board and the United Landowners Association, Inc.

Newly elected vice presidents are Maurice Machris, Bandini Petroleum Co.; Jas. H. Lewis, Sunset Oil Co.; Angus Crites, Anchor Oil Co.; W. L. Adkisson, Taft Investment Co. The new secretary-treasurer of the Agency is W. A. Russell, Seaboard Oil Corp.

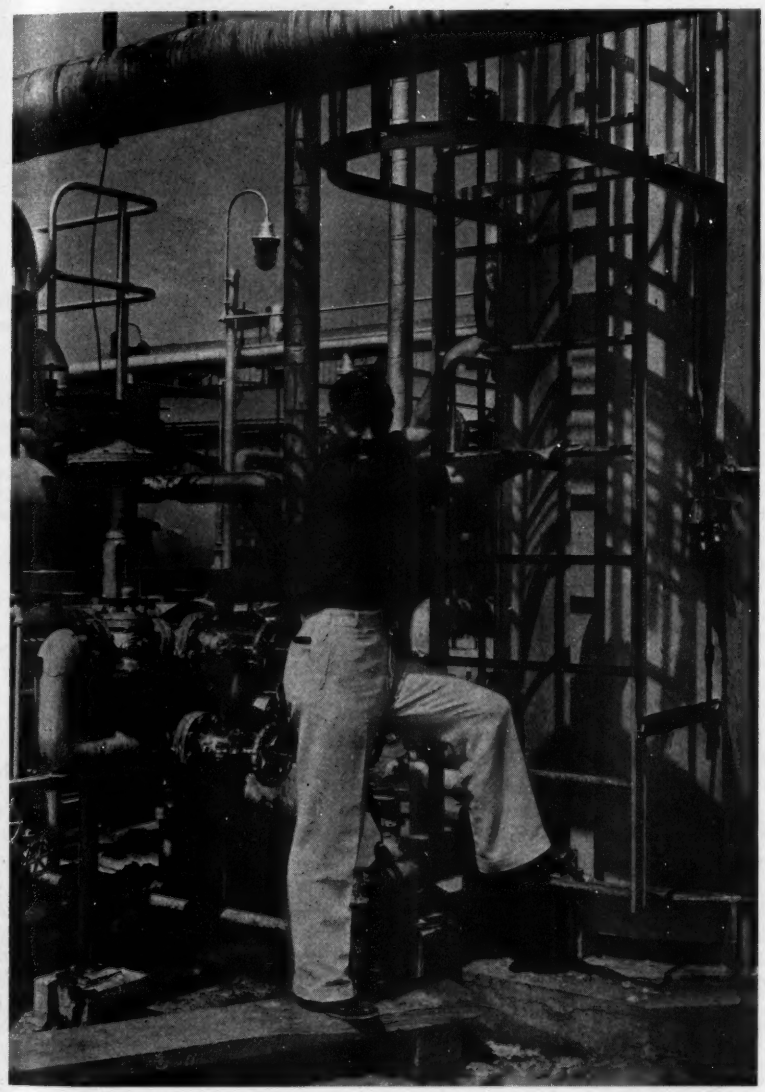
Rush M. Blodget was re-elected executive vice president, and in that capacity begins his eighth year as manager of the Agency.

Directors elected to fill vacancies caused by expirations of terms of office were: Neal H. Anderson, A. J. Crites, L. E. Doan, Robert Garrison, J. H. Lewis, Ralph B. Lloyd, Maurice Machris, Frank Travers, C. P. Watson, H. E. Woodworth, and Roy Young.

As a mark of appreciation for his services as president of Oil Producers Agency for the past year, Lloyd Williamson was presented with a token of appreciation by the Board.

L. L. Aubert

James H. Lewis



Maurice Machris, recently elected vice president of the Oil Producers Agency of California, was caught by the editor's camera at his favorite spot, Wilshire Oil Co.'s new polymerization plant.

Pilots are experimenting with "frozen" gasoline for use in combat planes. Cooled with dry ice and alcohol, inventor claims it cannot be ignited by bullets.

Geophysical exploration and new drilling technique increased world oil output 35 per cent between 1926 and 1929.

Thermite "bomb" recently patented, will start a flow of oil from a new level, inventor claims.

Plans Completed for Annual Frolic of California Natural Gasoline Association

With Saturday, June 10 selected as the day and the Brentwood Golf Club as the setting, plans are now complete which will make this year's Annual June Frolic of the California Natural Gasoline Association the most frolicsome fun-fest ever, according to Harold Linhoff, president.

Under chairmanship of George Christen, the association's entertainment committee composed of Gordon Greene, Gus Wetzel, George Stevenson and George Tyler has been hard at work for months surveying acceptable grounds and lining up events and doings to assure maintenance of a sizzling fun-pace from the early hours of Saturday morning until the wee small hours of the next A. M. when the last tired but happy member departs.

Always well attended, it is expected that this year's frolic will establish a new record not only because of the events scheduled as features for the day and evening, but because of the central, easily reached site of the Brentwood Golf Club. George Tyler, association secretary, therefore cautions members planning to attend with their friends that reservations should be made at the earliest possible moment. Tickets for the event are priced at $2.50 which includes dinner and the big stag show to follow. Reservations should be phoned to Tyler at VAndike 5521 or addressed by mail, direct to the association's office, 510 W. 6th Street, Los Angeles.

As usual the day-long event will start in the morning with a sports program continuing through the afternoon as a prelude to the climax which will be the dinner in the clubhouse at 6:30 P. M.

The sports program for the day will include golf, baseball, tennis, badminton, horseshoes and swimming. Green fee for golf is $1.25 with foursomes teeing off at 6 minute intervals. The course will be open for play at 6:30 A. M. and members desiring a specific playing time are advised that it is necessary to make reservations 7 days in advance. Prizes for low net, low gross and blind bogey will be awarded.

A feature of the entire day's program, certain to meet with widespread approval and popularity will be free beer served at various tees on the golf course and at the baseball grounds. Sandwiches will be served at noon to members at nominal cost while the clubhouse bar will serve tonsil dust removers throughout the day and evening at no more than standard prices.

Facilities for baseball, badminton and horseshoes are on the golf club grounds. Prizes for these events, as well as tennis, have been selected and will be awarded to the lucky ones. The tennis court, located a short driving distance from the club, is that of May Sutton Bundy, for which a charge of 25c per person per hour will be made which will include locker room facilities at the Club. Directions for reaching the court will be given at the clubhouse.

Arrangements have been made for swimming, both indoor and outdoor, at the Santa Monica Deauville Club. The fee of 50c per person includes towel and locker.

Directions for reaching the Brentwood Golf Club are: From Los Angeles drive west on Wilshire to the western limits of Soldiers' Home at Sawtelle. San Vicente Blvd. intersects Wilshire at this point. Turn right and thence drive direct to the clubhouse at San Vicente and Burlingame Avenue. From Valley points, take Sepulveda to Wilshire, thence west to San Vicente and on to the club.

Long Beach Supply Man Completes World Cruise

Arriving home late in April, Roy Hitchcock of the H. & B. Sales Co., of Long Beach, completed a cruise to the far flung corners of the earth which is the envy of the boys on "Supply Row".

Mr. Hitchcock, accompanied by Mrs. Hitchcock, left the coast October 15, 1938. First point of call was Honolulu, after which followed Japan, China and Singapore. Leaving the more common tourist lanes, the Hitchcocks struck out through the Malay Peninsula to Malacca and Kuala Lumpur. After exhausting the exploratory possibilities of these Asiatic outposts, the travelers visited Penang, Rangoon and other Burmese settlements.

The itinerary carried the Hitchcocks on into India, where they visited Calcutta, Darjeeling and Bombay. Next port of call was South Africa, after which followed the countries of our southern neighbors, the South American Countries. Argentina, Chile and Brazil were scanned thoroughly by the world travelers. On the homeward trek at last, the Hitchcocks traveled up the Amazon River to Bele'm, through the Panama Canal and home.

Mr. Hitchcock reports great interest in Bali—(wonder why?), India, particularly Darjeeling, held great fascination for the fortunate couple. Travel in the Andes Mountains presented the greatest variety of interest. Due to seasonal floods, the tracks were washed out in many places, and necessitated the use of four separate railroads interspersed with motor car detours.

During the course of his travels Mr. Hitchcock, who is an amateur cameraman of no mean ability, took 2000 ft. of film which should prove of great interest to his many friends in the oil industry.

Roy Hitchcock

John H. Wents and Son Open Consultation Offices

John H. Wents & Son announce establishment of consultation offices at 1008 Subway Terminal Building, Los Angeles. Telephone: MI 0217.

John H. Wents, Jr., former chief valuation engineer and geologist for Diversified Royalties, Los Angeles, will be available for the preparation and interpretation of geological and valuation reports relative to oil properties and royalties and as consultant in their appraisal and sale.

New Terminal Opened By General Petroleum Corp.

Celebrating the completion of its large new office building and warehouse recently erected on East 37th St., between Vernon and Soto Streets, at a cost of approximately $165,000, the Southern California operating department of General Petroleum Corp. held open house April 14, with H. H. Mosher, division manager of the department, acting as host. Fifty employees and many guests participated. Inspection of the modern, commodious establishment was followed by a dance at the Rio Hondo Country Club, given by the General Petroleum Men's Club.

Field Development

San Joaquin Valley

Standard Finishes Greeley Well For 5000 Barrels

Standard Oil Co.'s KCL No. 11-16, in sec. 20,29-26, flowed to the sump at an estimated 5000 barrel rate on May 3rd. The oil, cutting less than 1%, was flowing from the "1-2" zone of the Vedder formations, the equivalent of the Rio Bravo sands. The production is the second to be obtained in the field from this zone, the first having been Standard Oil's KCL No. 11-2, from which the zone was named. The depths in both wells were roughly equal, each being slightly deeper than 11,500 ft.

Standard has abandoned its Greeley "jinx well," Elrich Comm. No. 1, in the same section. Drilled considerably deeper than the levels in which production was found in off-set wells, the bottom was abandoned at 13,538 ft. in what is considered barren Eocene, the second finger of which was found at 13,477 ft.

Standard Oil Co., the sole operators in the field, is running five strings, the deepest of which is Fleishauer Comm. No. 2 at 11,600 ft. KCL No. 11-17 has been completed at 11,517 ft. but no production test made. Fleishauer No. 2 is making another formation test, many of which have in the past shown water trouble.

Location for another well in the field is made for KCL No. 11-20 in sec. 18,29-26.

Poso Creek Try Sets Pipe

With 8⅝" casing landed at 2330 ft. and the hole bottomed at 2458 ft., Little and Gilstrap's Keating No. 2 is bailing for production. The well, located in sec. 20,27-27, is in an area north of the Premier field which has been drilled innumerable times to depths from 2000 to 3000 ft.

SAN JOAQUIN VALLEY WILDCATS

Fresno County

Area	Well	No.	Section	Depth	Status
Cantua Creek	Shell Oil Co., Port Costa	48–30	30, 17-16	6980	Drilling
	The Texas Co., Loeschner	1	12, 17-16		Rig
Coalinga	Amerada Pet. Corp., SPL	7–17	17, 19-16	8237	Producing
		26–17	17, 19-16		Grade
	Roco Oil Co., Lindblom	1	3, 20-14	1950	Testing
	Rylatt, Harry E., Kipling	3	26, 20-14	1475	Drilling
	Stuart Oil Co., Stuart	1	12, 21-14	1410	Testing
	Superior Oil Co., P.V.	1	22, 20-15		Rig
Fresno Area	Seth Turner	1	4, 14-19		Rig
Gatos Creek	Gatos Creek Oil Co.	1	19, 19-13		Rig

Kern County

Belridge	Honolulu Oil Corp., Michelssen	63	14, 28-20	1687	Abandoned
Buena Vista	Gen. Pet. Corp., B.V.A.	1	1, 32-24	4018	Drilling
	Western Gulf Oil Co., K.C.L. Panhandle	1	3, 32-26		Rigging up
Buttonwillow	Calif. Explor. Co., Salisbury	1	7, 29-24	12876	Drilling
Canal	Shell Oil Co., KCL	B-87	4, 30-25	13916	Drilling
Delano	Atlas Pet. Co., Moore	1	7, 25-25	3802	Testing
Devil's Den	Luxton, W. L.	1	27, 25-18	710	Idle
Edison	Harris, S. F., Zenith	1	27, 30-30	405	Idle
	Renner & R.H.L. Oil Co.	1	27, 30-30	2600	Idle
Elk Hills	Richfield Oil Corp.	A-12-33	33, 30-25	2263	Drilling
	Standard Oil Co.	KCL 21-1	19, 30-25	7610	Drilling
Grapevine	Richfield Oil Corp.	KCL 1	28, 11-20	10547	Drilling
Lost Hills	Auman, Allen	Lincoln-Theta 1	12, 26-20	1560	Idle
	California Lands, Occidental	2	24, 26-20	5623	Idle
Mt. Poso	Crestmont Oil Co.	1	20, 26-28	1260	Drilling
	Wright & Eyer	1	28, 26-28	1509	Drilling
Poso Creek	Little & Gilstrap, Keating	2	20, 27-27	2458	Testing
Richgrove	Dilamar Oil Corp., Quinn	3	15, 25-27	2929	Idle
Round Mountain	Pan May Oil Co.	2	31, 27-29	673	Drilling
San Emigdio	Continental Oil Co.	KCL F-1	5, 10-21	987	Drilling
	Shell Oil Co.	KCL 1A-8-32	32, 11-22	4870	Abandoned
		Union 76-31	31, 11-22	850	Drilling
Strand	Continental Oil Co.	KCL D-2	14, 30-36	6075	Drilling
	Tide Water Assoc.	KCL-E-35-7	7, 30-26	8067	Drilling
Trico	Standard Oil Co., T. G. & T.	2	2, 25-23	2336	Drilling
Upper Kern	C.C.M.O., Julienne	1	2, 29-29	2098	Abandoned
Wasco	Getty, George F., Janssen	1	7, 27-24		Rigging up
	Union Kernco	1–36	36, 27-24	12985	Drilling

Kings County

Strattford	P. W. Burnham & Assoc. Bartells	1	23, 20-20		Rig

Tulare County

Ducor	Amal. Oil & Gas Co., Konda	6	23, 24-27	1965	Drilling

Wright & Eyer Top Vedder

Reporting the top of the Vedder at 1454 ft., and the lower Vedder at 1490 ft., the Wright & Eyer Well No. 1, in sec. 28,26-28, is standing cemented with bottom at 1509 ft. Eight and five-eighths inch casing has been run to 1500 ft. preparatory to a production test.

Crestmont Oil Co. Buchner No. 1 located in sec. 20,26-28 northwest of Dominion Pool production, is bottomed below 1300 ft. in sand and silt. The well is an attempt to stretch the east side production northwest into territories which have been heavily drilled in the past with notable lack of success.

San Emigdio Area Abandons One, Spuds Two Wildcats

Abandonment of Shell Oil Co.'s KCL No. 1A-8-32 in sec. 32,11-22, followed the discovery of barren Vaqueros formation at 3950 ft. The total drilled depth of the well was 4970 ft. Deepest previous depth drilled in the area was below 5000 ft. by the Standard Oil Co. in section 28. Average depth of the many holes has been about 2200 ft.

Undiscouraged by the many dry holes drilled in the district, Shell has spudded Union No. 76-31 in sec. 31,11-22. The search is apparently toward discovery of production in the lower Miocene or Eocene formations which was unavailing in the first test. It is believed that the new location is higher structurally and may encounter the elusive production.

Continental Oil Co., drilling KCL No. F-1 in sec. 5, 10-21 just north of the Rancho Emigdio boundary, is below 1000 ft. after spudding on April 28th. The section has been drilled twice by the Union Oil Co.'s KCL Nos. 1 & 2 which were drilled to 2375 ft. and 3916 ft. respectively before abandonment.

Strand Area Tests Drilling Ahead

Tide Water Associated Oil Co. Cont-KCL No. E-35-7 in sec. 7,30-26, is drilling below 8000 ft. in its prospecting try northeast of the Canal field. The well is on a structure which has been drilled before by Continental to a depth of 8500 ft. The immediate area has also been drilled by the Ohio Oil Co. in three attempts at discovery, the deepest of which was carried to 9000 ft.

Wheeler Ridge Well Below 10,500 Feet

Richfield Oil Corp. KCL No. 1, in the Wheeler Ridge field, is coring hard shale with bottom below 10,500 ft. Completed from the Middle Miocene formations early in the year, the well flowed an initial 1900 barrel rate of 37 gravity oil with 700,000 cubic feet of gas. By the middle of March the well had dwindled to a pumped production of less than a hundred barrels daily.

Deciding to make the hole a test of lower formations, the tubing was pulled, and deepening operations instituted.

Cores taken to date have shown very little of interest. Some sand was cored at 9975 ft. which showed evidence of a little gas.

Canal Wildcat Abandoned Near 14,000 Feet

Abandoned May 8th, Shell Oil Co. KCL B-87-4 in sec. 4,30-25, two miles northwest of the Canal field was bottomed below 13,900 ft. in hard shale. Electric log and Geophone records did little to encourage further drilling in the well. The Vedder formations were encountered at 13,375 ft. and were barren.

In section 14, within the Canal field proper, Shell Oil Co. is below 8000 ft. in KCL No. A-36-14, and is grading location for KCL No. A-25-14 in the same section. Shell has eleven producers in the field.

Ohio Oil Co., discoverer of the field, has ten producers, with No. E-12 drilling below 1000 ft. The well, located in sec. 14,30-25 was spudded on May 2nd and has 987 ft. of 11¾" surface pipe in place.

Standard Oil Co. has one well, Rio Bravo No. 1, in sec. 12,30-25. The well is located on the Pump Station site which is owned in fee by the Standard.

Edison Area To Get Two Wildcat Tests

Proposing to drill just north of the Edison field between Edison and Kern River, in a much drilled area, Francis O'Reilly has material on the ground for a test of sec. 32,29-29 to be known as Douglas No. 1.

O'Reilly's well in sec. 5,30-29 has sanded up. Last reported flowing an estimated 75 barrels, the hole will be cleaned out and put on the pump.

Six miles east of the Edison field, S. F. Harris has made 400 ft. of hole in Zenith No. 1. Located in sec. 27, 30-30 the well was originally reported as the R.H.L. Oil Co. No. 3.

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Drills to Determine Size of Amerada Area

Following discovery of rich oil and prolific gas sands in the Amerada Petroleum Corp.'s SPL No. 7-17, located in sec. 17,19-16, four miles north of the Eocene pool and two miles east of the old East Coalinga field, locations are being made for further wells in the immediate area to determine the limits of the new and interesting production.

No. 7-17, discovery well, was last reported flowing 313 barrels of 32 gravity oil per day. The oil is clean and is accompanied with plenty of gas; 1,800,000 cu. ft. of it. Initial production was established at a 4230 barrel rate through a 14/64 in. bean with 14,200,000 cubic feet of gas.

Immediate drilling plans call for an off-set well, SPL No. 26-17, which will be one location northeast of No. 7-17.

Three thousand feet southwest of the discovery, Bandini Petroleum Co. is pouring foundation for a test of its acreage in sec. 18,19-16. The well, to be known as No. 48-18, is located 330 ft. north and 330 ft. west of the south quarter corner of the section, in which the company holds 160 acres.

Superior Oil Co., Union Oil Co. and Standard Oil Co., all of whom hold direct off-set acreage to the discovery section, are expected to lay down immediate drilling programs. Richfield Oil Corp. and The Texas Co. are holding acreage a quarter section removed from sec. 17, as is the Bandini acreage.

Lost Hills Outpost Idle

Allen Auman's Lincoln-Theta No. 1 outpost in sec. 12,26-20, is idle at 1567 ft. after reporting slight oil showings in the interval 1365-1420 ft.

California Lands, Inc. Occidental No. 2 is standing at 5623 ft. A formation test of the Second Temblor zone from 5615 ft. to bottom flowed salt water at a 3000 barrel daily rate.

Cole's Levee Well Completed

The completion of Standard Oil Co.'s KCL No. 20-1 in sec. 9,31-25 adds a mile to the known westerly limits of field production. The well flowed a 480 barrel rate of clean 52 gravity oil, accompanied by 10,400,000 cubic feet of gas on a formation test of the interval 8735-8817 ft.

Tide Water Associated Oil Co. KCL No. 61 located half a mile south of production in sec. 14,31-25 is drilling below 9000 ft. and expecting to top the productive sands within the next 800 ft.

Richfield Oil Corp. Western No. Second B-14-3, located near the east quarter corner of section 3, is, since the Standard test, only three quarters of a mile north of proved production. It was last reported as drilling in hard shale below 6700 ft.

Ohio Oil Co. KCL No. F-2, one location north of the discovery well, F-1, is attempting to complete. Bottom has been plugged from 9917 ft. to 9672 ft. KCL No. F-3 located as an off-set to Union Oil Co. Kernco No. 1-11, most easterly of the producers, is standing with the rig up.

Union Oil Co. is pouring foundation for a rig to be known as Kernco No. 2-11, one location north of No. 1-11 in sec. 11,31-25.

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CASE OIL FIELD ENGINES

Richfield Spuds A-12-33 In Own Discovery Field

Spudding the third well in the Richfield-Western field, Richfield Oil Corp. has carried Western No. A-12-33 below 2000 ft. The well is located ½ mile east of Richfield Oil Corp. production, in sec. 33,30-25, and is the first attempt at locating the easterly production limits outside the discovery section.

One and a half miles northwest of production and one mile east of the town of Tupman, Standard Oil Co. is below 7500 ft. with KCL No. 21-1. The well is on sec. 19,30-25 in the midst of closely blocked Standard holdings.

Standard Testing Wasco Well

With pipe set to 13,100 ft. and hole bottomed at 13,136 ft., Standard Oil Co. is testing for production in KCL No. 8B-2 in sec. 17,27-24. The location is south of the known Continental and Standard production in sec.'s 7 and 8 and if completed will be the first southerly production found in the structure. Standard drilled No. 8B-1, located 2000 ft. southeast of the present try, to a depth of 13,716 ft. without encouragement; and the area three miles more southeasterly was tested below the 13,000 ft. mark by Continental Oil Co.

Northwest of established production near the center of section 7, George F. Getty is rigging up Janssen No. 1.

Standard Oil Co. recently completed Mushrush No. 2 in the easterly part of sec. 7, flowing an estimated 6,144 barrel rate of 36 gravity oil cutting less than 1 % through a 36/64" bean with 578,000 cubic feet of gas. Production was from 13,122 ft.

Holly Dev. Spuds 82-12C In Coalinga Eocene Pool

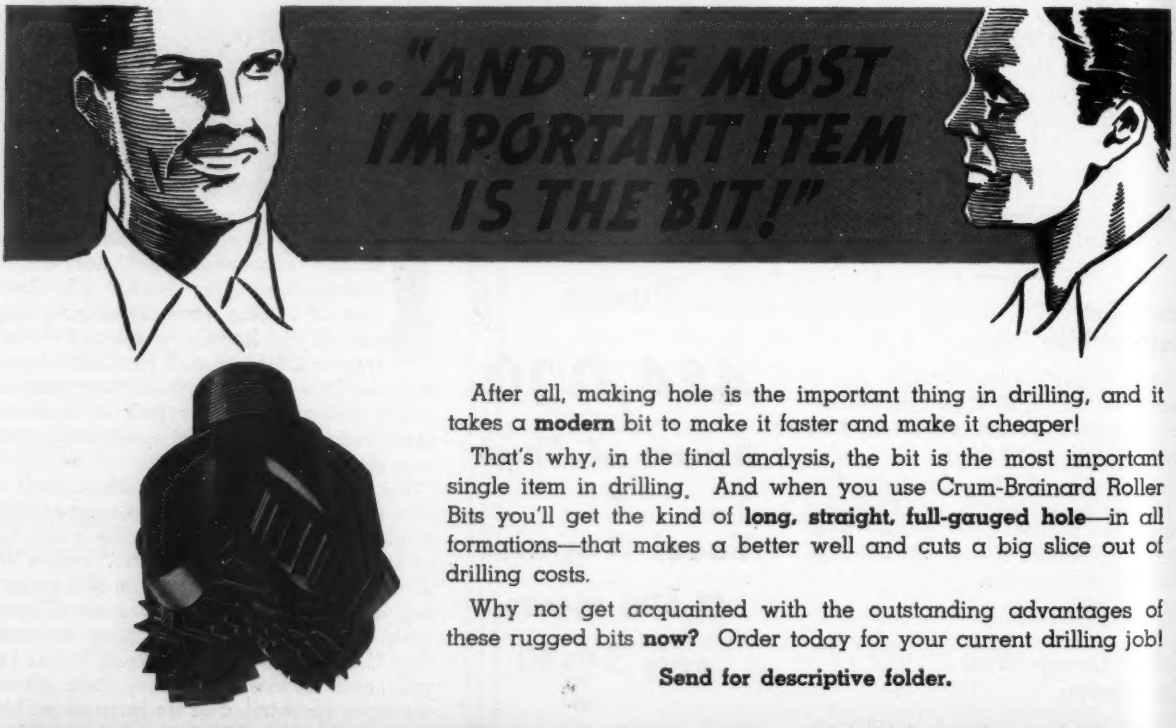
Holly Development Co. has spudded, No. 82-12S in sec. 12,20-15, along the westerly edge of field production. Lying as it does north and west of established wells, the outcome of the operation will be of general interest. Activity in the pool remains constant with nine strings running at various depths.

Robert S. Lytle, Operator's well No. 31-7F was completed on May 6th, flowing clean oil at a 3,600 barrel rate through a 32/64 in. bean with 700,000 cubic feet of gas. Seven inch liner was run to bottom at 7268 ft. Base of the Gatchell sand in this well was given as 7250 ft.

Standard Oil Co. is preparing to complete well No. 73-13 C after locating the top of the Gatchell at 6807 ft.

Delano "Cat" Tests Gas Sand

Atlas Petroleum Co. Moore No. 1, located in sec. 7,25-25, four miles west of the town of Delano, has set plug at 3385 ft. preparatory to running 8⅝" casing for a test of gas sands encountered at that level. Bottomed at 3802 ft., the well is in an area little tested even though it lies but 6 miles east of the Trico gas field.



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New Coalinga Area Soon To Be Tested

Making a bid for production between the Eocene pool and the Coalinga West Side field, Superior Oil Co. is building rig for a test on the Pleasant Valley Farming Co. lands. Located near the south quarter corner of sec. 22,20-15 at the approximate center of the undrilled area, the well will be known as P.V. No. 1.

Superior has blocked up considerable acreage which is for the most part off-set with major company leases or fee properties.

Arvin Wells Near Production Depth

The two drilling wells at Arvin, south of the Mountain View field, are nearing the depths at which the Standard Oil Co. and Superior Oil Co. found good production in their Jewett wells. In sec. 16,-31-29, where the production was found, The Texas Co. is below 5400 ft. with Jewett No. 1. The project is just northwest of the discovery well.

The other driller is Universal Consolidated Oil Co.'s Universal-Derby No. 1, which is being drilled in sec. 15, just south of Berry No. 1 which the Union Oil Co. drilled to 6812 ft. with scant success. While Union found some oil sand, the location was not considered commercial.

Standard Oil Co. is rigging up Jewett No. 2 in sec. 16 as an off-set to Superior production and the Universal try.

Buena Vista Lake Test Below 4000 Ft.

General Petroleum Corp. B.V.A. No. 1, located in sec. 1,32-24, at the edge of Buena Vista Lake, is drilling in shale below 4000 ft. The well is intended as a test of the older and deeper geologic horizons which have produced oil elsewhere in the Valley, but have never been tested in this specific area.

Ten miles northeast of the General well, and four miles east of the Lake, Western Gulf Oil Co. is preparing to drill KCL-Panhandle No. 1 on sec. 3, 32-26. The area surrounding the project has been tested only once before. The previous drilling in the area was done by the Ohio Oil Co. who drilled KCL No. B-1 to 5627 ft. in sec. 4,32-26. Nearest production to the Western Gulf try is the Buena Vista Lake gas field, which lies across the township line with its most southerly point in section 5, two miles west of the Western Gulf well.

You are reading the Pacific Coast oil men's home paper.

Buttonwillow Test Again Drills Ahead

California Exploration Co. Calif. Lands-Dougherty-Salisbury No. 1, sec. 7,29-24, north of the town of Buttonwillow, is drilling below 12,871 ft. A formation test made from the shoe of the 7⅝" casing at 11,473 ft. with hole open to bottom, flowed an 8 barrel per hour rate. Recovery was muddy water with traces of oil. Shut in gas pressure was 1200 pounds. Last reported formation was shale streaked with hard sand showing light cuts. The thin, hard, sands have been present more or less consistentently for the last thousand feet, but have been so tightly packed that they offer practically no oil reservoir. A formation test, with bottom at 11,560 ft., showed a little oil of high gravity.

The present plans are to drill ahead until an adequate test of the area has been made.

Fresno County Test Below 7000 Feet

Shell Oil Co. Port Costa No. 48-30, drilling in the Cantua Creek Area 33 miles southwest of the city of Fresno, was last reported below 7000 ft. The project, located in sec. 30,17-16, is the first important test of the general area since Western Gulf produced some oil in S.P.L. No. 3 from tht Temblor Zone in sec. 3,17-15.

The oil produced in the well was 38 gravity but of insufficient quantities to warrant production, and the well was abandoned at 8531 ft. in May of 1937.

The fact that commercial production of oil is believed a distinct possibility in this area is attested by the fact that The Texas Co. is building rig for Loescher No. 1 six miles northeast of the Shell test, in sec. 12,17-16.

New Bulletin

A bulletin describing the new Crosby Pressure Recorders has just been published by Crosby Steam Gage & Valve Co. This instrument has been completely redesigned, and has many exclusive features such as interchangeable tubes, micrometer calibration adjustments, one-piece stainless steel pens, push-pull snap action chart hubs, universal cases suitable for either wall or flush mounting and automatic camlocks. These recorders are furnished in 10" and 12" sizes and in one, two, three, or four pen units.

Copies of the bulletin may be obtained from the company offices at 30 Church St., New York City, N. Y.

Wildcat—oil well in undeveloped territory.

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Republic Casing and Tubing
Republic Line Pipe
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Los Angeles Basin

West Montebello Now Basin Hot Spot

With excellent completions becoming commonplace, West Montebello is now the hottest spot in the Los Angeles Basin. Of the six wells lately placed on production, all but two showed capacities above 750 bbls. a day, the exceptions flowing 475 bbls. and 250 bbls.

Most significant of the group were Graham & Loftus Oil Corp.'s Coffman No. 1 and Wood-Callahan Oil Co.'s Harris No. 1, both located at the intersection of 6th St. and Lincoln Ave. and both finished in the lower Seventh zone. First to go on production was Graham & Loftus' well, which, bottomed at 7557 ft. and with 112 ft. open, came in flowing 775 bbls. of oil and an estimated 7,000,000 cu. ft. of gas. Gravity of the oil, which is clean, is 36 degrees, A. P. I. Across the street to the north, Wood-Callahan bottomed at 7560 ft. and was completed with a yield estimated at 1000 bbls.

With perforations open in four intervals of the Sixth zone, The Texas Co. brought in Mulholland No. 5 flowing 1070 bbls. of clean oil and 2,000,000 cu. ft. of gas. Adjoining the Texas well, Traders Oil Co. No. 1 is flowing 750 bbls. a day on an open hole test of the second and third fingers of the Sixth. Both wells are located at the corner of Montebello Blvd. and Avenida de la Merced.

Kern-St. Helens Properties deepened the area's discovery well, Monterey No. 20, from 6353 to 6530 ft., and with 120 ft. open recompleted flowing at the rate of 480 bbls. a day, clean.

Smallest of the recent completions was Standard Oil Co.'s Braun No. 3, which, after deepening from the Masser zone to the second Seventh, came in flowing 250 bbls. of 35 gravity clean oil.

With the question of lower Seventh zone production satisfactorily answered for the east end of the area by the Graham & Loftus and Wood-Callahan wells, attention is now directed to Bush Oil Co.'s westerly outpost, Olds No. 1. Hole is bottomed in oil sand at 7171 ft. and casing is standing cemented at 7050 ft. If the Bush well shows a capacity of 500 bbls. a day or more, it is probable that a new westerly drilling boom will follow.

Interest in the field is now at its highest point since the discovery in January of 1938. Many wells are being deepened from the Fifth and upper Sixth zones to the more prolific deeper horizons and many new projects are scheduled for early drilling.

Torrance Hot Spot Is Thing of Past

With the number of active wells in Torrance to be counted on the fingers of one hand, the erstwhile hot spot definitely is a thing of the past. Of the half a dozen recent completions, Vesta Petroleum's Bruhn No. 2 was the only one to show a fair initial, 395 bbls. The others, for the most part less advantageously located, were all under 250 bbls. and, with but one exception, were pumpers. Only one new well is preparing to drill in the late active area, D. & J. Oil Co.'s project located on Eshelman near 235th St.

One of the most interesting wells now working is World Petroleum Corp.'s No. 1 in the westerly portion of the field, south of Sepulveda Blvd. on Hawthorne Blvd. The company is deepening the former Standard Oil Co.'s Currier-Flint No. 2.

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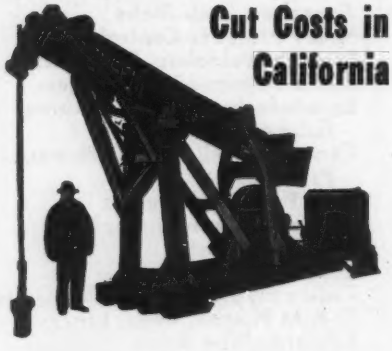

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LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Inglewood	Vanguard Oil Co., L.A.I.	1	29, 2-14		Foundation
La Mirada	John McKeon and Assoc. Carmenita	1	21, 3-11	8990	Idle
Long Beach	Richfield Oil Corp., Richville	1	13, 4-12	7492	Abandoned
Montebello, West	Ridge Oil Co., Sea Cliff	1	3, 2-12	5850	Drilling
Newhall	Mangrum and Page, Lintz	1	4, 3-15	390	Idle
	Palmluck Oil Co.	1	23, 3-16		Rig
Palmdale	New-Cal	1	17, 6-12	1250	Idle
Palos Verdes	Rolling Hills Pet.	1	27, 4-14	5385	Idle
Playa del Rey	Empire Oil Co., Samarkand	1	34, 2-15	4025	Drilling
San Pedro	Grady, R. T.	1	23, 5-14	650	Idle
Sunland	South Alta Oil Co.	1	1, 2-15		Rig
Towsley Canyon	J. E. O'Donnell	1	8, 3-16	4820	Drilling
Whittier	Langstaff, Geo. W., Iliff	1	8, 2-11	2250	Idle
	H. C. Oil Co., Joyce	1	22, 2-11	3600	Idle
	C. W. Partridge, Hillside	1	22, 2-11	1780	Cleaning out
	Taylor Drlg. & Prod. Co., Gregg	1	17, 2-11	1560	Drilling
	Orange County				
Costa Mesa	A. V. Oil & Gas Co.	1	16, 6-10	4751	Idle
Dana Pt.	Dana Point Oil Assoc.	1	15, 3-8		Rig
Kraemer	Congress Oil Co.	2	36, 3-9		Foundation
Seal Beach	Union Oil Co., Nieto	1	12, 5-12	7029	Drilling
	San Bernardino				
Carbon Canyon	Carbon Canyon Oil Co.	1	30, 2-8		Rig

O'Donnell Deepening Towsley Canyon Well

With the apparent intention of finding the large production obtained by Barnsdall Oil Co. in the Newhall-Potrero field, J. E. O'Donnell is deepening his Towsley Canyon wildcat. The project was completed as a small wet oil producer about a year ago by Towsley Canyon Oil Co. Nearing 5000 ft. in depth, the well is located in sec. 8,3-16, in the hills west of Newhall.

Severns to Drill New Coyote Well

Severns Drilling Co. is preparing to drill No. 4 on the McNally lease at the west end of the West Coyote field. The company has been successful in developing commercial production where several other operators have tried and failed.

Standard Oil Co. finished Emery No. 68 flowing at an 800 bbl. a day rate from 800 ft. open to 5885 ft. No. 67, on the same lease, is drilling at 3500 ft.

Oil Showings Noted In Ridge Wildcat

With the drill below 5850 ft., several interesting zones have been noted in Ridge Oil Co.'s wildcat well located west of the Montebello field. Formations encountered seem, in general, similar to those found in the West Montebello producing area, but none of the sand bodies has yet carried sufficient oil to warrent a production test.

California Crude Oil Production

Two Weeks Ended April 29, 1939

	April Daily Quota	Average Daily Production	Excess
San Joaquin Valley			
Belridge—North	13,415	11,424	*1,991
Belridge—South	1,905	1,048	*857
Buena Vista	16,175	15,640	*535
Canal	4,190	3,779	*411
Coalinga-East(Eocene)	3,778	3,902	124
Coalinga—East-West	15,427	6,598	*8,829
Edison	2,335	2,214	*121
Elk Hills	7,255	9,975	2,720
Fruitvale	6,480	5,952	*528
Greeley	1,890	1,118	*772
Kern Front	7,380	6,982	*398
Kern River	5,760	2,395	*3,365
Kettleman No. Dome	52,145	50,103	*2,042
Lost Hills	3,980	3,120	*860
McKittrick	3,685	2,680	*1,005
Midway	39,405	40,248	843
Mount Poso	12,420	11,976	*444
Mountain View	7,965	8,652	687
Rio Bravo	6,720	8,689	1,969
Round Mt. and Coffee Canyon	10,520	10,880	360
Ten Section	8,730	8,507	*223
Wasco	820	662	*158
Other Fields	2,465	2,872	407
TOTAL	234,845	219,416	*15,429
Coastal Counties			
Elwood	4,110	4,247	137
Rincon	2,845	2,769	*76
Santa Maria	5,825	3,550	*2,275
Gato Ridge	1,930	3,624	1,694
Santa Maria Valley	18,215	9,655	*8,560
Santa Paula-Newhall	5,320	5,400	80
Ventura Avenue	29,670	33,369	3,699
Other Fields	5,405	5,269	*136
TOTAL	73,320	67,883	*5,437
Los Angeles Basin			
Alamitos-Seal Beach	6,760	7,204	444
Brea-Olinda	8,170	5,377	*2,793
Coyote—East	2,690	2,166	*524
Coyote—West	7,405	7,383	*22
Domingues	17,525	20,951	3,426
El Segundo	3,215	3,253	38
Huntington Beach—New and Old	24,085	29,133	5,048
Inglewood	11,810	11,888	78
Long Beach	40,015	48,994	8,979
Montebello	5,772	5,875	103
Montebello-West End	5,243	9,757	4,514
Playa del Rey	4,770	5,177	407
Richfield	7,235	7,865	630
Rosecrans-Athens	9,465	13,388	3,923
Santa Fe Springs	25,810	27,780	1,970
Torrance	5,684	5,938	254
Torrance "34" and "D & B"	12,916	16,495	3,579
Wilmington	66,225	88,299	22,074
Other Fields	3,020	3,615	595
TOTAL	267,815	320,538	52,723
STATE TOTAL	575,980	607,837	31,857

*—Shortage.

S. A. Shepard

A recent visitor on the Pacific Coast was S. A. Shepard, Eastern Advertising Manager of the California Oil World. After looking over the oil fields in the state he returned to his offices in New York City.

Richfield Abandons Cherry Avenue Test

At a depth of 7492 ft., Richfield Oil Corp. recently abandoned Richville No. 1, located on Cherry Avenue a mile north of Signal Hill. No showings of importance were encountered and the "bug dope" indicated the well to be too low structurally to warrant further drilling. The location was relatively close to an abandoned hole drilled by The Texas Co. ten years ago.

Vanguard To Drill Inglewood Wildcat

Playing for another accumulation on the Inglewood fault northwest of Potrero, Vanguard Oil Co., headed by Cliff Baker, is preparing to drill a wildcat well just outside the city limits of Inglewood. Although many wells in the past have sought such a new field, none was successful. The old trys, however, were not located in the immediate vicinity of the new venture.

Petrol Drills Lone Gato Well

The Petrol Corp. is drilling the only well now active in the Gato Ridge field. Tognazzini No. 32-A, as the well is known, once attained the depth of 2990 ft., but due to hard luck the hole was lost, necessitating a redrill job which is now in progress below 2000 ft.

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Union Oil Abandons Seal Beach Wildcat

Finding all formations barren to 7101 ft., Union Oil Co. abandoned its Nieto No. 1 back of the city of Seal Beach. No casing was set in the hole aside from the 1020 ft. of 13⅜ in. surface pipe needed to protect surface water.

Harbor Well Seeks Ford Zone

Seeking the Ford zone, or an equivalent, Superior Oil Co. is deepening Seaside No. 1 in the Long Beach Harbor area. To last reported depth of 5381 ft., no new oil sands had been reported.

Fortunate indeed, is the City of Long Beach, which holds substantial royalty interests in approximately half of the wells now drilling in the entire Wilmington field. Most of these projects are to be bottomed in the prolific Terminal zones, and added to the wells now producing on municipal lands, will make the city one of the largest royalty owners in the state. Already the municipality is planning to retire its bonded indebtedness from its oil and gas income.

Basin Finishes 4th Potrero Well

Basin Oil Co., which somehow has solved the secret of obtaining good wells at Potrero, finished its No. 4 flowing 350 bbls. a day. Casing was cemented on bottom at 6082 ft. and perforated at undivulged intervals. The oil is the highest gravity commercially produced in the Los Angeles area, testing 45 gravity.

In the old townlot area, Beloil Corp. is preparing to redrill Castleberry No. 1, an old well formerly completed at 5450 ft. Several operators have applied for drilling permits which the city of Inglewood seems unwilling to grant.

Rig Is Erected At Dana Point

Indicating that the long rumored Dana Point wildcat will soon become a reality, a derrick has been erected and equipment is being installed. Backing the project is Milton Kane, San Francisco capitalist, who has taken offices in Los Angeles for the time being. W. E. (Steve) Dunlap has been retained as consulting engineer and geologist.

Shell Redrills Dominguez Well

Good production was obtained by Shell Oil Co. in the recompletion of Reyes No. 27-A in the Dominguez field after redrilling and deepening from 4075 ft. to 4265 ft. With 360 ft. open to the new bottom, the well was pumped "in," yielding 375 bbls. of 29 gravity clean oil.

Union Oil Co. is completing Carson No. 11 after plugging the 8698 ft. hole to 8500 ft. A late report states that swabbing recovered 350 bbls. of oil cutting 25.0% in a 22 hour period. Union has two other active wells and Shell one.

Rosecrans Recompletion Yields 1000 Bbl. Initial

With initial production estimated at 1000 bbls. a day, Royalty Service Corp. recompleted Gordon No. 3 in the Rosecrans field. The hole had been redrilled to 7827 ft., where a new liner containing 145 ft. of 120 mesh perforations was landed. Production is now beaned to 300 bbls. a day of 32 gravity clean oil.

In the westerly section of the field, Universal Consolidated Oil Co. is completing Trust No. 15 in the interval 7590-

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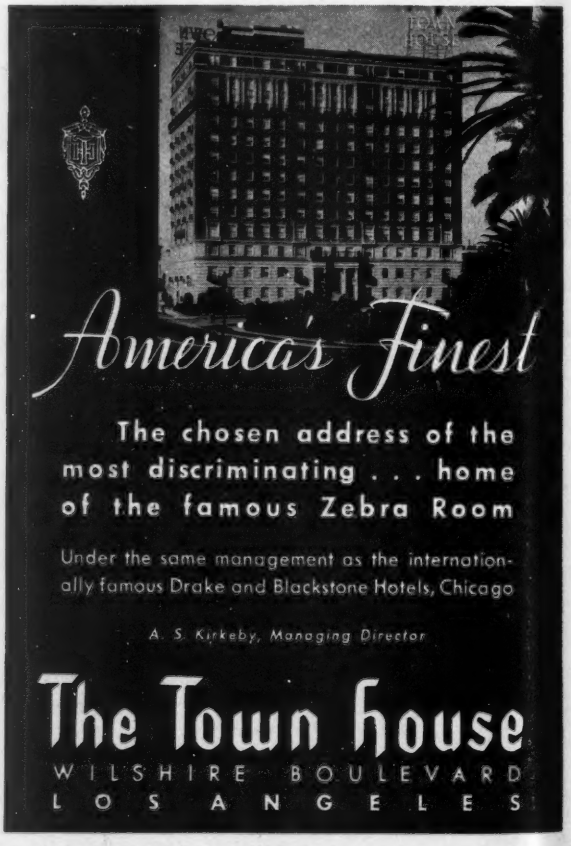
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7815 ft. Previously, an untested zone between 7360 and 7500 ft. was tried without success.

Wilshire Oil Co.'s westerly outpost, Leitch No. 1, is approaching 7000 ft. in depth, while south of Rosecrans and west of Figueroa, John Marion is preparing to complete his No. 2 well. Bankline Oil Co. has redrilled Kirby No. 1, the field's champion jinx well, to below 6700 ft.

Two blocks south of the proved area, Howard Oil Associates are nearing critical depths in H. O. No. 1. Bottom of the hole is reported at close to the 7000 ft. level.

Deep Test Started At Huntington Beach

Duchess Oil Co., a San Francisco company, represented in Los Angeles by W. H. Martgan, has erected a derrick over the abandoned Standard Oil Co. Farnsworth No. 4 preparatory to deepening. Plans of the new operators call for deepening to the 4950-5300 ft. zone which was found productive by Standard Oil Co. on its Thompson lease. The play is on the flat land at the east edge of Huntington Beach. All acreage in the vicinity has been leased, a large part being taken by Nedal Oil Co., headed by geologist A. A. (Al) Carrey of Long Beach who will handle the engineering on the Duchess well.

In the Five Points area, Thompson & Gieske recemented the 8⅝ in. water string in the Dragon well after locating water at the shoe. The project is again being put on the pump.

T. W. A. Spuds Third Aliso Canyon Well

Following the recent completion of Porter No. 2, Tide Water Associated Oil Co. moved equipment to No. 11 which is now making hole below 500 ft. From 575 ft. of formation, No. 2 flowed at the rate of 1985 bbls. of 26 gravity clean oil.

North of the Porter wells, Standard Oil Co. has failed to find production to 6150 ft. in Ward No. 1, while to the east, Union Oil's S. S. Orcutt No. 27-1 does not look too encouraging at 5400 ft. Both wells crossed the main control fault much lower than anticipated.

Padreson Multi-Zone Well Flows 400 Bbls.

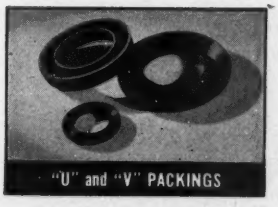
Padreson Oil Co. obtained an excellent multi-zone well in Block D-55-2, located at the corner of Opp and Marine Streets. Hole was bottomed at 3670 ft. where the well was completed flowing in excess of 400 bbls. a day. Perforations are open from 2715 to 2811 ft. and at intervals from 2960 ft. to bottom.

Allied Petroleum Corp. completed well No. 32 flowing 230 bbls. from the Ranger zone at 3410 ft. The well is located near the intersection of Wilmington and Jackson Streets.

According to Bill Hendricks, superintendent, Hollywood Oil Co.'s latest completion, Baxter No. 6, is good for 335 bbls. a day from the Ranger zone. The hole is open from 2765 ft. to bottom at 3095 ft. Like in many of the more successful Ranger zone completions, the liner employed was of the "pre-pack" type.

Union Pacific Railroad Co. finished two wells, one in the Ranger zone and one in both Terminal zones. E-15, an Edison Co. right-of-way project, completed in the Ranger with a conventional gravel-pack job on the liner. Initial gauges indicated a capacity of 200 bbls. a day. Finished in the Terminal zones was U.P. No. 105, which while producing through a small bean, flowed nearly 700 bbls. a day.

General Petroleum Corp.'s first experience with a "pre-pack" liner proved a happy one in the completion of Harbor Community No. 48 which came in flowing at the rate of 300 bbls. a day through a 40/64 in. bean.



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GARLOCK

Coastal District

Alliance Completes Big Ventura Well

The finest independent completion in years for the Ventura Avenue field was recently obtained by Alliance Petroleum Corp. in its Hisey No. 3. Located west of the Avenue at the north edge of the field, the well was bottomed at 8520 ft. and completed with initial production gauging 2080 bbls. a day of 29 gravity oil. 1,625,000 cu. ft. of wet gas accompanied the flow. Open to production is 750 ft. of rich oil zone, the 8⅝ in. water string being cemented at 7750 ft. Unlike many wells drilled in this field, practically no mechanical trouble was encountered in the drilling of Hisey No. 3, a feather in the cap of the contractor.

Near the east end of its Taylor lease, Shell Oil Co. finished No. 98 with initial flow of 2275 bbls. of 30 gravity oil cutting 10.0%. The hole, bottomed at 8230 ft., is open at intervals below 7450 ft. The company is preparing to test Edison No. 33 in which drilling was completed at 8290 ft.

Tide Water Associated Oil Co. recompleted Lloyd No. 77 on the gas lift flowing 300 bbls. a day. Total depth is 9865 ft. An open hole production test is being made on Lloyd No. 123.

Lloyd Corp.'s interesting easterly extension well is redrilling at 9250 ft. after a drill pipe fish caused the loss of the lower part of the 9815 ft. hole.

You are reading the Pacific Coast oil men's home paper.

New Company Plans Piru Project

Temescal Development Co., headed by R. W. McBurney, is reported to be planning new development work in the vicinity of Piru in Ventura county. Mr. McBurney is well known in the industry through his former connection with the Burnoel company.

Fred Cole Drills Ferrini Wildcat

One of the most important Santa Barbara county wildcats of recent years is now being drilled by Fred Cole on the Ferrini property south of Guadalupe. The location has been favorably considered at various times by several major operators but, up to the present, has never been tested. Last reported coring below 2200 ft., the well seeks production in the Monterey shales similar to that found in the nearby Santa Maria Valley field.

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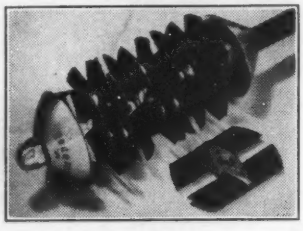

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Engineering tests show that soot accumulations cause heat loss in these surprising ratios:

1/32 inch of soot ..... 9.5% loss
1/16 inch of soot ..... 26. % loss
1/8 inch of soot ..... 45.3% loss
3/16 inch of soot ..... 69. % loss

Figure what this means in fuel waste on your own bill, and you will see what the **Thor Flue Shaver** can save you in actual dollars.

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Factory Representative
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NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Merced	Stone, Elmer B,	1	8, 12-11		Location
Monterey	The Texas Co., Arroyo Seco	1	11, 19-15	3600	Drilling
Solano	Standard Oil Co., C.P.C.	1	15, 5-2		Rigging up
Sutter	Buttes Oilfields, Inc.	5	1, 15-1	1650	Drilling

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
Santa Barbara County					
Capitan	Litho Oil Co., Rhode I.	1	4, 4-30	3060	Drilling
Carreaga	Barbara Pacific Oil Co.	A-A 2	8, 8-33	6600	Drilling
Carpinteria	Western Oil Royalties	1	32, 4-25	2023	Abandoned
Foxen Canyon	Richfield Oil Corp., Tinaquaic	1	36, 9-32	5541	Idle
Gato Ridge	The Petrol Corp., Tog.	32-A	9, 8-32	2991	Redrilling
Goleta Gas Area	Gen. Pet. Corp., More	4	15, 4-25	1650	Drilling
Guadalupe	Cole, Fred Ferrini	1	15, 10-35	2210	Drilling
Orcutt	O. C. Field Gas. Corp.	1	21, 9-33	5520	Drilling
Los Olivos	United Western Oil Co.	1	15, 7-30	3700	Drilling
San Marcos	Richfield O. Corp.,San Marcos	1	20, 6-29	1500	Drilling
Summerland	Garman Oil Co.	17–1	22, 4-6	1487	Idle
	Glenray Oil Co., Glenray	1	1, 4-26	90	Drilling
	Oil Group, Inc., Hyland	1	16, 4-26	1315	Idle
San Luis Obispo County					
Elk Horn	Calif. Pet. Prod., Irons	1	19, 10-24	2270	Idle
	Newton, S. M., Stafford	1	18, 31-21	2640	Drilling
	Temblor Oil Co.	1	22, 31-21	3465	Cleaning out
Paso Robles	Epco., Inc.	1	27, 26-13	5180	Drilling
Ventura County					
Red Mountain	Martin, J. W.	3	15, 4-21	1575	Drilling
Sespe	English, J. A.	2	13, 4-19	975	Drilling
	Merchants Pet., Cochran	8	1, 4-20	1900	Testing
	Nevada-Fortuna Oil Co.	1	13, 4-19		Rig
	Renard Oil Co.	1	6, 4-19		Rig
Shiells Canyon	Galveston Oil Co.	1	5, 3-19	2675	Drilling
	Shomy Oil Co., Shomy	1	32, 4-19	810	Drilling
Simi	Levesque, G. M.	1	17, 2-18	1750	Drilling
Tar Creek	Section 20 Oil Co.	1	20, 5-19	2775	Drilling

Galveston Well Shows Cuts at 2600 Ft.

Galveston Oil Co.'s test well, located in sec. 5,3-19, west of the Shiells Canyon field, is now being watched with considerable interest after passing through a 20 ft. gray sand interval at 2600 ft. which is said to have shown light oil cuts. Immediately below the sand body, the drill re-entered Sespe shales in which the well is now drilling below 2675 ft.

Near the highway, Shomy Oil Co. is drilling its No. 1 at 870 ft.

Richfield Stops Tinaquaic Drill

Latest Coastal District wildcat to end in seeming failure is Richfield Oil Corp.'s Tinaquaic No. 1, located in sec. 36,9-32, three miles northeast of Gato Ridge in Foxen Canyon. Only slight oil showings were found in fractures of brown shale causing the company to suspend operations at 5541 ft. and plug the hole to the surface. The well is not yet officially abandoned.

Levesque Coring In Simi Wildcat

Believing that productive formations will soon be encountered, G. M. Levesque has started coring in his wildcat located just south of the town of Simi. Recent reports were to the effect that bottom was at 1750 ft. in a hard shale formation.

Merchants Testing Sespe Outpost Well

Merchants Petroleum Co., which several years ago discovered a particularly productive spot in the Sespe area, is preparing to make a production test in Cochrane No. 8, an outpost well. Hole was bottomed in Sespe at 1910 ft. and 8⅝ in. casing has been run to test the interval 1300-1775 ft.

Carreaga Test Cores Oil Sand

Barbara Pacific Oil Co.'s Arnold-Apache No. 2, deep test of the Carreaga property in sec. 8,8-33, is reported to be coring shale with thin streaks of oil sand below 6600 ft. Completed last year as a small producer, the well was recently taken over by Long Beach interests who are deepening in search of more profitable production.

More No. 4 Below 1150 Ft.

General Petroleum Corp.'s More No. 4, first new well in the Goleta gas field in some time, has spudded in and is drilling below 1150 ft. Surface casing was set at 520 ft.

Litho To Test Sespe Showings

Having drilled to a total depth of 3060 ft., Litho Oil Co. is preparing to plug the hole and test showings encountered at higher levels, presumably in the Sespe formation. The well is located on the large Rhode Island Estate property immediately north of the State Highway and east of General Petroleum Corp.'s Erburu producing lease in the Capitan field.

Rincon Well Cores Good Oil Sand

Chanslor-Canfield Midway Oil Co. is reported coring good oil sand in Hobson No. B-27 at Rincon. Now below 4,700 ft., the oil zone was said to have been picked up near the 4500 ft. mark. C. C. M. O. Co. is preparing to drill two more wells in the field.

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Bulgaria Honors Noted U. O. P. Research Director

Dr. V. N. Ipatieff, director of chemical research of Universal Oil Products Co., is to receive the honorary degree of Doctor of Chemistry from the University of Sofia, Bulgaria, on May 20, during the celebration of the fiftieth anniversary of the founding of that institution.

Professor Ipatieff sailed May 3 on the Normandie to receive this honor. He has also been invited by President Du Pont of the French Chemical Society to be guest of honor at a joint meeting on hydrogenation of three French chemical societies, in Paris, May 24 to 28. Paul Sabatier, also famous as a pioneer in hydrogenation, will be a guest as well.

Professor Ipatieff will present a paper on "Copper as a Catalyst for the Hydrogenation of Benzene."

Chemists of many nations will assemble at Strasbourg, France, May 29, to celebrate a week of Improvement in Petroleum. Professor Ipatieff will attend this meeting and will present a paper, "Activity of Mixed Catalysts."

While in Paris, Professor Ipatieff will visit the high pressure laboratory of James Basset.

He plans to leave France for home, June 7, to proceed with the establishment of the high pressure laboratory he is founding in collaboration with Universal Oil Products Co. at Northwestern University.

"Kop-R-Klad" Wrenches Reduce Oil Well Hazards

The unusual line of heavy-duty industrial tools introduced by them last year has met with surprising acceptance among oil field men, according to Dillon Stevens, vice president of the Plomb Tool Co., Los Angeles.

The new line, most items of which are illustrated above, is comprised principally of a series of heavy-duty copper-plated box wrenches for both double and spud end design. Engineered to meet demands for high grade tools that will withstand the hard usage of the oil field and copper-coated to reduce sparking hazards, the "Kop-R-Klad" group represents a real advance in tool making.

"The initial response of the petroleum industry to this new line has been most gratifying," says Mr. Stevens, "and we are pleased to see that the expense of developing it has been thoroughly justified. We will continue to make the oil country an object of research and development for quality tools that will improve their methods and reduce operating and maintenance costs."

Plomb Tools are distributed to the petroleum industry by National Supply Co., E. D. Bullard Co., and other major suppliers.

Gasoline Sales Continue Upward Trend in March

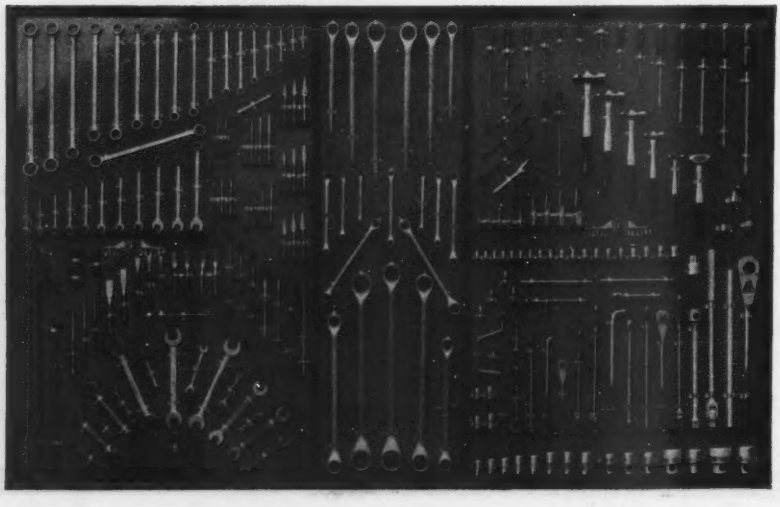
Sales of gasoline throughout California continued to gain during March, it was announced today by the State Board of Equalization on the basis of a report listing motor vehicle fuel distributions for the month.

The taxable sales amounted to 143,897,921 gallons on which a tax of $4,316,937.63 was collected. This represented a gain of 6.40 per cent over the same month of the previous year. It also was $609,423.57 more than the collections reported for February of the current year.

So far this year, each month has shown a gain over the same month of 1938. The March collections brought the 1939 revenue from this source up to $11,992,218.72, the report said.

Oil companies reporting sales of more than 300,000 gallons in March were listed by the board with the explanation that resale of gasoline previously taxed and exempt sales to the Federal government or an interstate or foreign commerce accounted for differences between total sales and taxable sales. These companies were as follows:

Name	Gallons Actually Sold	Net Taxable Gallonage
Aromalene, Inc.	533,069	521,979
Bankline Oil Company	548,063	None
Belridge Oil Company	1,817,927	267,175
Brown, Henry dba. Operators Oil & Refining	710,808	710,808
California Oil & Refining Co.	366,617	366,617
Caminol Company, Ltd., The	2,984,906	2,361,110
Century Oil Co.	1,105,663	871,265
Cowan Oil & Refining Co.	899,738	None
Del Rey Oil & Gas Company	555,680	None
Eagle Oil & Ref. Co., Inc.	1,868,411	1,868,411
East West Refining Co.	712,410	712,410
El Camino Refining Co.	1,321,848	1,186,757
Elm Oil Company	413,225	413,225
El Tejon Oil & Refining Corp.	1,025,788	1,025,788
Envoy Petroleum Company	803,906	803,906
Estado Petroleum Corp.	1,863,358	1,716,142
Exeter Refining Company	850,430	850,367
Fletcher Oil Company, Inc.	2,634,637	None
F. R. Long, Inc.	1,096,874	None
Gen. Pet. Corp. of Calif.	25,278,075	10,554,176
Gilmore-Dabney, Inc.	467,520	None
Gilmore Oil Company	6,218,267	168,070
Hancock Oil Co. of Calif.	4,608,757	2,562,346
Harbor Refining Company	415,460	403,060
Honolulu Oil Corp.	673,506	8,604
Krieger Oil Company	615,234	615,234
Lomita Gasoline Company	1,684,639	None
Los Nietos Producing & Ref.	3,017,024	830,755
Macmillan Petroleum Corp.	2,541,889	2,419,534
Maguire Oil & Ref. Corp.	362,787	359,840
McCallen Refining Company	856,222	856,222
Meek, Herbert A., dba. Henry H. Cross Company of Calif.	412,019	None
Mercury Petroleum Corp.	461,405	461,405
Moffett, J. O. (S. F. Ref.)	351,185	351,166
Mohawk Petroleum Corp.	4,532,648	3,568,529
Norwalk Company, The	1,773,248	1,380,097
O. C. Field Gasoline Corp.	1,909,807	136,853
O. F. Collinge, Inc.	525,101	None
Olympic Refining Co.	1,096,974	1,038,203
Pacific States Oil & Terminals	2,641,213	2,430,396
Pacific Western Oil Co.	469,562	1,033
Petrol Corporation, The	1,482,443	700,014
Petrolane, Ltd.	425,932	279,606
Richfield Oil Corporation	21,189,847	16,239,546
Rio Grande Oil, Inc.	3,433,308	None
Rothschild Oil Company	1,297,573	1,297,573
R. R. Bush Oil Company	1,071,285	1,066,942
Seaboard Oil Co. of Dela.	1,452,426	None
Seaside Oil Company	3,804,373	1,603,635
Shell Oil Company	25,030,031	14,431,487
Signal Oil & Gas Company	1,324,681	None
Signal Oil Company	5,346,257	None
Socal Oil & Ref. Co.	844,971	771,621
Standard Oil Co. of Calif.	48,960,031	22,010,454
St. Helens Pet. Co., Ltd.	1,737,131	1,471,849
Sunset Oil Company	2,673,562	None
Superior Oil Company	2,271,095	149,205
Texas Company, The	8,888,670	6,666,085
Tide Water Asso. Oil Co.	26,864,142	14,186,820
Triangle Oil & Refining Co.	615,597	615,597
Union Oil Co. of Calif.	21,955,817	11,195,901
West Coast Refining Co.	387,573	None
Western States Gasoline Corp	3,562,391	111,119
Wilshire Oil Company, Inc.	8,833,800	8,337,615



Dowell Inc. Establishes Two Eastern Districts

Dowell Inc. announces the establishment of two new operating districts, one at Salem, Ill., and the other at Owensboro, Ky.

The new district with headquarters at Salem will provide a broader service to the oil industry for the entire state of Illinois. The treating stations now located at Flora and Lawrenceville, Ill., and Owensboro, Ky., will continue to serve the Illinois, Indiana and Kentucky areas as in the past. The Salem office will be quartered temporarily in the State Bank Building.

Producers' Central Committee Reelects Vander Leck, Chairman; Pemberton, Umpire

In a three-hour session that brought together one of the greatest representations of major and independent oil operators in California, the re-election of Lawrence Vander Leck, as chairman of the Central Committee of California Oil Producers for the ensuing year, the employment of J. R. Pemberton as Oil Umpire for the group and the start of a movement to urge uniform allotments for individual oil wells, proved to be the highlights of the annual organization meeting.

Vander Leck enters upon his fifth year as Chairman of the Central Committee and his re-election as head of this important proration group which represents every major and independent oil company in the state is indicative of the high regard the petroleum industry holds for him. Mainly through his knowledge of the industry as a whole and ability to organize and keep the oil men interested in matters of conservation and proration, the California situation has been able to keep its house in excellent shape, despite occasional outbreaks in new fields that for a time threatened to wreck the current market.

The re-election of Vander Leck and retention of Pemberton, was followed by the re-election of Lloyd Williamson as First Vice Chairman and Joseph Jensen, Second Vice Chairman. Miss Bettye Bohanon, Secretary, was also re-elected.

Appointment of various committees was made by Vander Leck as his first official duty of the ensuing year. He renamed L. L. Aubert as chairman of the Allocation Committee, whose duty it is to study crude demands and to make recommendations of how much oil is to be produced each month. Its recommendations go to the Central Committee for final approval and adoption. On the Allocation Committee will serve R. A. Sperry, W. H. Geis, Joseph Jensen, M. A. Machris, W. C. Whaley and William Keck, Jr.

For the Administrative Committee, which is comparatively new as a part of the Central Committee, the chairman selected W. C. Whaley as chairman; serving with him will be Jay U. Stair, A. H. Bell, E. B. Hall and R. A. Sperry.

A new well committee, appointed for the purpose of studying ways and means of reducing the number of drilling projects in California and to suggest other means of reducing activity in certain fields, will be headed for the ensuing year by Dana Hogan. Assisting him will be R. S. Lytle, C. K. Williamson, Wilbur Harrison and E. Robert Burns.

Ross McCollum was named by the chairman to head the Compliance Committee. He will be aided by Emil Kluth, E. D. Hardison, C. G. Williams and J. H. Sargent.

Also selected were three delegates-at-large. Representing the Los Angeles Basin will be I. M. Stevens. E. C. Bolton will represent the San Joaquin Valley and Emil Kluth was elected to represent the Coastal District.

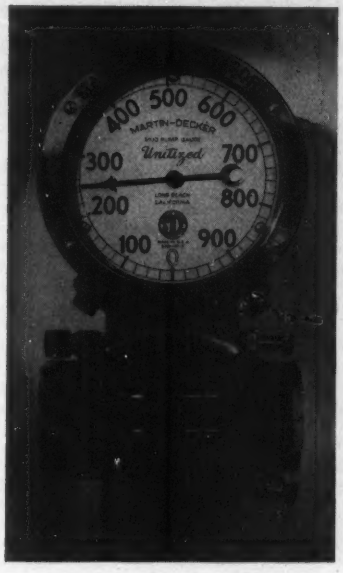
The next regular meeting of the Central Committee was held Wednesday, April 26, at which time it set a crude allowable for May. No change was held justified from the present schedule of 575,000 barrels daily.

That a definite drive will be made to improve the present production situation was indicated by a proposal read by W. C. Whaley. He read a resolution that embodied many of the suggestions submitted to the petroleum industry last March by the Fact Finding Committee, which was adopted by the Committee. The question of a uniform allotment for all wells will be discussed at the next regular meeting of the Central Committee.

With an increase in number of districts, many new faces have been added to the Central Committee. Fourteen new members were elected this year. H. Paul Grimm, president of the Bolsa Chica Oil Corporation is again active in proration problems as he was elected chairman of District 15, in the Coastal Area. He is a past Oil Umpire. Other new members include R. D. Montgomery of Richfield Oil Corp.; M. A. Machris, Wilshire Oil Co.; Wilbur Harrison, ex-Kansas banker and official of Apex Petroleum Co.; E. Robert Burns, MacDonald and Burns; C. W. Williams, Long Beach Harbor Oil Co.; L. R. Rogers, Superior Oil Co.; W. H. Eastham, Sunray Oil Co.; R. W. French, Continental Oil Co.; F. L. Campbell, Richfield Oil Corp.; F. E. Smith, Ohio Oil Co.; R. L. Keyes, The Texas Co.; Al Jergins, Jergins Oil Co.; C. C. Spicer, Republic Petroleum Co.; Neil Elder, Morton & Elder. Only Neal H. Anderson, formerly Oil Umpire, Al Jergins, C. C. Spicer, R. L. Keyes, Frank Wells, J. R. Thomas, S. P. Mullen and A. M. Anderson were absent.

Unitized Mud Pump Gauge For Shallow Well Drilling

A new model Unitized Mud Pump Gauge made for pressures up to 1000 pounds and especially designed for use in shallow drilling operations has been announced by Martin-Decker Corp., Long Beach, Calif. With the exception of lower capacity and the absence of the vernier-retard type movement, this compact instrument has all the well-known features of the larger Unitized Mud Pump Gauge. The dial face has been completely redesigned so that large



etched numerals are distributed over the entire dial circumference. The numerals are easily read from a distance of more than forty feet, and the built-in Pulsation Damper aids in smoothing out the gauge hand movements for easy reading, yet allows instant sensitivity to the slightest pressure changes.

The instrument contains Diaphragm Unit, Indicating Gauge and Pulsation Damper in one compact unit that can be quickly and easily installed or removed. It requires a minimum of attention, is unaffected by sudden fluid surges and is built to withstand the vibration of the pumps. The Martin-Decker 1000 Pound Unitized Mud Pump Gauge provides an economical and efficient method of pressure control in all slim-hole drilling operations.

For full particulars, write direct to Martin-Decker Corp., Long Beach, Calif.

Production of Glycerin From Petroleum Gases

Unlimited possibilities of petroleum as basic chemical material are indicated in the latest achievement of petroleum researchers—the production of glycerin, basic commodity of trade and industry, from petroleum gases, at a cost below the current market price.

Experimental operation of a small commercial plant is reported not only profitable, but productive of a product which is equal to if not better than the finest grades of glycerin on the market.

A. O. Smith Corp. In Full Line of Casing

The A. O. Smith Corp., Milwaukee, Wis., is now a full-time manufacturer of oil well casing, with a complete range of A. P. I. standard sizes down to 5½" in outside diameter and in wall thicknesses to meet practically any casing need.

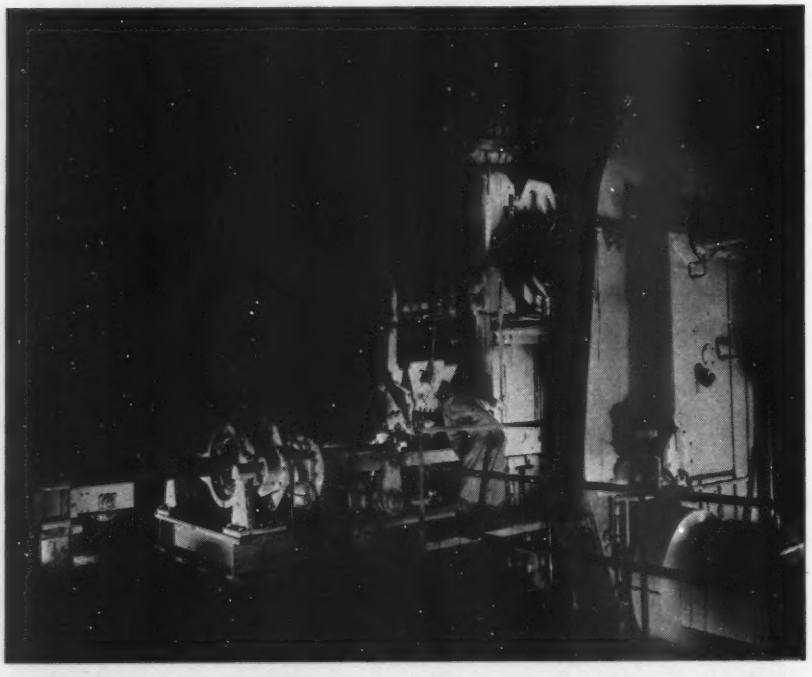
Simultaneous with the company announcement comes word that Smith Casing is now available in four grades including a new and still higher yield strength casing, called Super Yield Casing.

With a minimum yield point of 105,000 lb. per sq. in., Super Yield Casing is made in the smaller sizes for extremely high collapse pressures. "It is the first standard casing with such high physical strength", according to the company statement, "and it offers new economy with safety, particularly for deeper holes. This newest Smith contribution to the oil industry, marks the latest milestone in casing history. Again, a substantial advance has been made toward the ultimate in setting depths as well as in the efficient utilization of the steel in casing."

Involving radically new methods of manufacture, the new small sizes, like all Smith Casing, are made from rolled steel plates. This permits thorough examination of the steel before manufacture and assures uniform wall thickness. It is produced in accordance with A. P. I. standards. The new sizes are manufactured in average lengths of 50 ft., this factor considerably shortening the running time for the strings by requiring fewer joints. Already a considerable quantity has been successfully set in the field.

A comprehensive book, describing the results of recent Smith studies and tests on casing, is now under preparation and will be ready for distribution in the near future.

Sales offices of the A. O. Smith Corp. are located in New York, Pittsburgh, Chicago, Tulsa, Dallas, Shreveport, Houston, Corpus Christi, **Los Angeles** and **San Francisco.**



Smith High Yield Casing of small diameter is here shown (left foreground) emerging from one of the special machines developed by Smith engineers for this production.

Rapid Construction Co. Announces Change in Name

Rapid Construction Co. announces the change of its name to California Construction Co. There is no change in ownership, management or operating policies; this being a change of name only. Address is at 4100 E. Washington Blvd.

Alexander E. Walker Heads Spang Chalfant

Alexander E. Walker, vice president and director of The National Supply Co., Pittsburgh, Pa., has been elected president of Spang Chalfant, Inc.

Previous to joining The National Supply Co. organization, Mr. Walker served the Pittsburgh Steel Co. from Jan. 1, 1937, in the capacity of executive vice president.

Mr. Walker first affiliated with the steel industry when he joined the sales staff of the Labells Iron Works, now the Steubenville Plant of the Wheeling Steel Corp., following his graduation from the Engineering Department of the University of Michigan in 1910.

In 1916 he became a salesman for Republic Iron and Steel Co., now part of Republic Steel Corp., and in 1919 was made assistant general manager of sales.

Alexander E. Walker

From 1928 to 1936 he served Republic Steel Corp. as general manager of sales. In 1936 Mr. Walker became president of Truscon Steel Corp.

Lane-Wells Announces Promotions in Personnel

According to Walter T. Wells, president of Lane-Wells Co., D. S. Jeppson has been elected to the board of directors and became controller of the company April 15, 1939. Mr. Jeppson has been auditor of the company since 1933 through the firm of D. S. Jeppson, C. P.A. and Associates, and will have charge of all duties regularly designated to those of the controller.

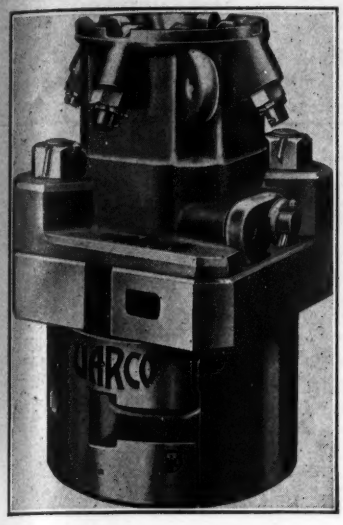
B. G. Peters, as secretary-treasurer of the company since its organization, will continue to carry out the duties of that position.

M. E. Montrose, formerly Gulf Coast manager of Lane-Wells has been appointed general sales manager of the company with headquarters in Los Angeles. Mr. Montrose brings to his new position a thorough knowledge of operating conditions in the Mid-Continent and Gulf Coast areas, gathered in his six years' association with the company in those fields.

Morton T. Higgs, Gulf Coast sales manager, will replace Mr. Montrose as Gulf Coast division manager with headquarters in Houston and will have charge of the company's operations in Texas and Louisiana.

Pin Drive Kelly Master Bushings

Abegg & Reinhold Co., Ltd., 2533 East 26th St., Los Angeles, Calif., announce two new units to their line of rotary drilling equipment. These two units are new in design and principle with a new



type of drive being transferred from the Kelly Bushing to their Master Bushing by means of pins which replaces the method of the driving square.

Advantages claimed are the driving radius has been doubled; the unit pressure thereby lowered. Furthermore, the pressure is applied at right angles, not in the corners of the square, thus eliminating rounded corners and severe wear. The Master Bushing bowl extends to the top leaving more room for the sliding in of pipe slips. This is important where the drill pipe is located to one side. Time in going in and out is materially lowered. Both Master and Kelly Bushings are locked tightly together, preventing the Kelly from being pulled or vibrated out of the table. The latch on the Master Bushing is opened and closed with ease.

The latch utilized upon this new unit is also incorporated in their regular line of Master Bushings for all types of Kelly Bushings. All Kelly Bushings are made for either Square, Octagon or Hexagon drive shafts. The careful selection of proper alloy steels, heat treatment and correct engineering principles for long life under severe conditions are brought to a new high by the organization with these new units.

Gulf Engineers, Inc., 2949 Jensen Drive, P. O. 182, Houston, Texas; Oilfield Equipment Co., Inc., 30 Church St., New York City., N. Y., or the home office will gladly furnish additional information.

ERNEST K. PARKS

Ernest K. Parks, of Los Angeles, is a consulting petroleum engineer. His training began with the U. S. Bureau of Mines in Denver, Colo., where he served in the petroleum division during the years 1919-1921, after which he resumed studies at Stanford University, graduating in 1924, joining Standard Oil Co. of California, and remaining continuously with that company until recently when he resigned to engage in private practice.

During his long service with Standard, Mr. Parks occupied positions in the central engineering department in San Francisco, in the Department of Economics, and in various field stations in the San Joaquin Valley, concluding with a four year term as head of production engineering in the Southern California District.

Mr. Parks is an active member of the American Petroleum Institute, having served as chairman of the California Committee on Production Practice, and more recently as Sponsor for the API Pump Performance Experiment, conducted last year in Los Angeles. He is past chairman of the Southern California Section of the American Institute of Mining and Metallurgical Engineers, and is active in the program work of the Petroleum Division.

White Motor Executive Addresses Oil Exposition

J. N. Bauman, vice president of The White Motor Co., Cleveland, Ohio, in an address before the Motor Transport Division of the Oil-World Exposition on April 26, urged oil men to cooperate with truck and bus manufacturers in bringing about a better public understanding of the necessity for highway transportation.

"There are 48,000 communities in the United States, and 2,265 in Texas alone, embracing 4% of the state's population, which are entirely dependent upon trucks and buses for their public transportation," Mr. Bauman said.

"Practically every commodity used in America today has a ride over the highway in a motor truck at some point in its journey from producer to consumer. This is true of petroleum products even though they start their journey via tank ship, pipe or tank.

"Discriminatory legislation against highway transportation stems from the fact that the public believes motor trucks and buses use the public roads for private purposes without paying for the privilege," Mr. Bauman said. "As a matter of fact," he pointed out, "trucks represent about 14% of all motor vehicles and pay 27% of all motor vehicle taxes. Special taxes upon the owners of motor vehicles have not only contributed more than the total cost of all state highways, but also a substantial portion of these special taxes has been diverted to other purposes, notably upkeep and development of rural consolidated schools," Mr. Bauman said.

"All the unfair and restrictive legislation and excessive taxation that hamper highway transportation penalizes the oil industry directly by reducing the consumption of its products. So our industries have much in common. We are practically in the same family. We are, at least, brothers-in-law, in view of all the recent legislation affecting our common interests."

(Continued from Page 3)

ingly, 263 ft. of drillable casing, the lower 139 ft. containing 100 mesh perforations, was landed on bottom and cemented through holes at 8097 ft. with 18 sacks.

On April 24th, 1939, with tubing hung at 7950 ft., circulation was reversed, and Amerada Petroleum Corp.'s S.P.L. No. 7-17 became the discovery well of what will, in all probability, become one of California's most important oil fields. First official gauge taken was at the rate of 4230 bbls. of oil and 14,200,000 cu. ft. of gas flowing through a 44/64 in. bean. Reducing the bean to 14/64 in., the flow was 307 bbls. and 1,800,000 cu. ft. with tubing pressure 2750 lbs. and casing pressure 3050 lbs. Gravity of the yield is 33 degrees API and the water content is 0.1%.

Due to the character of the stratigraphic trap, ultimate extent of the accumulation is open to conjecture and must remain so until limits are established by the drill.

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Oil Men's Calendar

C.N.G.A. Meeting First Thurs. Each Month.

May

9-11—American Institute of Chemical Engineers, Akron, Ohio.

15-18—AMERICAN PETROLEUM INSTITUTE, 9th Mid-Year Meeting, Roosevelt Hotel, New Orleans, La.

21-25—National Assn. of Purchasing Agents, Annual Convention, (Oil Company Buyers' Group), Fairmont Hotel, San Francisco, Calif.

22-June 8—World Automotive Engineering Congress, sponsored by S.A.E. for New York (May 22-26), Indianapolis (May 30), Detroit (May 31-June 2), San Francisco (June 6-8).

O. C. Field Coring Orcutt Wildcat

After several days' cleanout job, O. C. Field is making new hole in his old Corporation No. 1 wildcat, located in sec. 21,9-33 on the northwest plunge of the Gato Ridge anticline. For a long period idle at 5456 ft., the well is now being cored ahead below 5500 ft. in search of productive Monterey shale.

Emsco Derrick & Equipment Elects Officers, Directors

At the annual meeting of stockholders of Emsco Derrick & Equipment Co., held at the general offices of the company in Los Angeles recently, the following officers were elected: Hugh H. Glen, president; W. D. Davidson, first vice president; E. B. Stevenson, second vice president; G. W. Walton, third vice president; Roger W. Leason, secretary-treasurer, and A. H. Miller, assistant secretary-treasurer.

Directors elected were: Frank Purnell, Youngstown, Ohio; W. J. Morris, Dallas, Tex.; F. I. Brinegar, Dallas, and J. A. Crawford, T. J. Crumpton, Hugh H. Glen, and W. D. Davidson, all of Los Angeles.

The oil industry uses over 1,100,000 tons of 50°Bé. sulphuric acid yearly, and this about totals the output of sulphuric acid plants built by oil refiners to handle H_2S.

Three out of four steel workers own automobiles and rate motoring as their favorite recreation.

Recent experiments reveal the possibility of using compressed gases such as helium and nitrogen for low-cost insulation of power transmission lines.

Polymer gasoline available in the world from gases produced by cracking, refinery recovery, natural gas, and natural gasoline yearly is estimated at 360,000,000 bbls.